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## EDITORIALS†

### CALIFORNIA MEDICAL-ECONOMIC SURVEY: COMPLETED AT LAST!

**"Formal Report on Factual Data," Off the Press.**—Unless unforeseen circumstances arise, the "Formal Report on Factual Data" of the California Medical-Economic Survey, printed at the expense of the California Medical Association, should issue from the press and be in the mails about the same time as the Official Journal for November. By vote of the Council, a copy of the 224-page volume will be sent to every member of the California Medical Association, extra copies will be distributed to federal and other interested agencies, and there will be on sale a limited number of copies, at two dollars each.

\* \* \*

**An Unusual Experience.**—No activity entered upon by the California Medical Association in recent years has required so much time and effort of the California Medical Association Council as has this path-breaking enterprise, which was first placed in charge of Association councilors by the House of Delegates at the annual session held at Riverside in May, 1934, and recommitted each year since; final instructions, as given by this year's delegates at Del Monte, being recorded as Item 4, on page 428, in the June, 1937 issue of CALIFORNIA AND WESTERN MEDICINE. The Del Monte resolutions relieved the "Committee of Five"—to whom, in 1934, the supervision of the survey had been intrusted—from further duty, and authorized the Council of the Association "to join with the State Board of Public Health, the sponsors of the survey, and bring it to publication and distribution, in accordance with the rules and the directions of the Works Progress Administration."

\* \* \*

### Survey-Director's Services Terminated.

The Survey Director, Paul A. Dodd, Ph.D., who had been employed by the Committee of Five to supervise the collection and compilation of statistics, was officially notified of the termination of his services, and steps were immediately taken to have the California State Board of Public Health proceed with the publication of the "Formal Report on Factual Data," as compiled from the complete, typewritten Final Report, which the Survey Director submitted on January 29 of the present year.

†Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

**New Complications: Appointment of a Special Committee on Publication.**—At that stage, however, new difficulties arose owing to the fact that the California State Board of Public Health had no public moneys which could be used for printing the report; and, because of this, the project came back to the California Medical Association Council for consideration at its meeting on October 3 last, at which time—as will be seen in the Council minutes in this number, on page 337\*—the responsibility of issuing the "Formal Report on Factual Data" was given over to a Special Committee on Publication, consisting of Doctors Howard Morrow, Edward M. Palette, and George H. Kress.

\* \* \*

**Prompt Publication and Distribution Made.** The Special Committee on Publication, whose members during the last several months had been studying the Survey Director's Final Report, prepared a Foreword and appended thereto eight Addenda, in which are outlined the financial audits, federal regulations and other matters; Addendum IX being the Survey Director's Preface, with acknowledgments to those who had aided in the work, and Addendum X outlining the working plan used in gathering and compiling the statistical data from which the 143 tables and fifty-six figures were developed. In addition, some forty pages of questionnaire and other forms are included in the Appendix; and these, with the tables and graphs, practically cover the factual data contained in the typewritten Final Report of the California Medical-Economic Survey.

\* \* \*

**The Survey Has Made a Heavy Draft on the Association's Reserve Funds.**—Members of the California Medical Association will be surprised, in reading the audits in Addendum II, that between forty and fifty thousand dollars of the Association's funds were utilized in the study of medical-economic problems in California; a project originally brought into being by the Riverside House of Delegates in 1934 and annually re-endorsed until brought to a close by this year's House at Del Monte in May, the Final Report of the Survey Director having been received by the Association only about three months previously.

\* \* \*

**Federal Government (FERA and WPA) and the California Medical Association Jointly Expended One Hundred Thousand Dollars on this Survey.**—The California Medical-Economic Survey, therefore, should naturally be of considerable interest to members of the California Medical Association, in view of the fact that they have given so generously of their funds (more than forty thousand dollars) to aid in carrying on the study; and it is to be hoped that the factual information thus assembled will prove of sufficient interest and value to compensate, at least partially, for the heavy outlay of funds. The Federal Government's interest in the project is

\* Page 337, Item 11.

based on its expenditure of some \$55,425.42 for wages of field agents, who were hired when so many persons were out of employment in the depression years of 1934-1935. The California Medical Association, for its part, undertook the study to obtain for its members, if possible, a more accurate picture of the incidence of sickness in California, and to learn whether existing social and other conditions here were such as militated against prompt recovery from illness and an early return to useful citizenship.

\* \* \*

**Criticisms of California Medical Association Not Justified.**—Certain social workers and publications have evidenced unusual interest in the Survey, and several articles teeming with criticism of the California Medical Association have appeared in a number of California newspapers and Eastern journals. In regard to such articles, however (by whom made or from what sources inspired, it does not matter), the members of the California Medical Association need heed but little, for their record of generous giving and prompt coöperation, in accord with the regulations of federal authorities, have always been such that no fair-minded persons could legitimately demand more. It is true that the "Formal Report on Factual Data" of the California Medical-Economic Survey, comprising a volume of some 224 pages, contains only the Survey Director's Preface and Introduction, and not his interpretations and conclusions; but to have printed all the text in his Final Report would probably have covered more than 400 pages, and thus have added in its publication very considerably to the extra cost.

\* \* \*

**Medical Men and Women Able to Interpret and Draw Logical Conclusions on Matters Medical.**—Members of the California Medical Association, because of their general academic and medical education and their very intimate knowledge of the citizens of California and the environments in which they live, should be able without great difficulty to make their own interpretations of a study (necessarily incomplete on many involved factors) of about "21,000 families, including almost 65,000 people in twenty-six representative counties of California." The rule in logic, not to draw general conclusions from special instances, should be kept in mind.

\* \* \*

**Study and Comment Invited.**—If space permitted, the story of the Council's trials, since the Study was commenced and carried through under such lay supervision, would be worth perusal by members who have followed the "costs of medical care" investigations in recent years. One need only add that California's experience in this public-welfare, social-service, medical-care investigation is quite in line with similar projects inaugurated during recent years in other parts of the United States. However, now that our own enterprise has been brought to a close, let us study the contents of our formidable "Formal Report on Factual Data" of 224 pages. Readers are requested to send in any

observations of their own, suggested by the factual data in this report, to the central office of the Association, to acquaint the Council with their reactions.

California's medical profession, in the future as in the past, may be counted upon to render its full quota of aid, in coöperation with other agencies, to remedy existing defects in the care of sick and injured citizens.

#### POSTGRADUATE SUPPLEMENT TO THIS ISSUE

**November Supplement Should Be Preserved for Reference.**—Members of the California Medical Association will do well to preserve the Supplement of the current, November, number of CALIFORNIA AND WESTERN MEDICINE, because of its presentation of a series of courses arranged by Doctors John C. Ruddock of Los Angeles, F. F. Gundrum of Sacramento, and F. E. Clough of San Bernardino, the Association's Standing Committee on Postgraduate Activities, as part of a proposed five-year program in postgraduate clinics and work which should soon become of great value both to the Association and the State.

\* \* \*

**The Aim of These Postgraduate Courses.**—In this new activity, the major aim of the Association is to bring to members who do not live in the metropolitan centers the latest advances in modern medical science, with particular reference, however, to the work of physicians in general practice. To attain this end, the coöperation of faculty members of the four Class A medical schools of the State—in San Francisco, the University of California and Stanford, and in Los Angeles, the University of Southern California and the College of Medical Evangelists—was sought and has been generously given. The contract, therefore, is two-sided, in that county societies, whose members arrange for clinics and courses, shall do their part in bringing out an attendance commensurate with the sacrifice necessary to be made by lecturers in leaving their private work in order to serve interests both of colleagues and citizens.

In this new plan, some experience may be necessary before assurance can be given that the arrangements made will always work out to 100 per cent of efficiency; but with cordial coöperation on both sides, it should not be difficult to obtain positive results, satisfactory alike to teachers and students.

\* \* \*

**How a Specialty Organization Carries On Its Postgraduate Work.**—We, ourselves, have just returned from the Chicago meeting of the American Academy of Ophthalmology and Otolaryngology, an organization that brings together annually some hundreds of specialists from all parts of the Union, and whose members, in classes of ten to twenty, spend two one-and-one-half-hour periods each morning (with a half-hour intermission), taking courses from fellow specialists who speak on matters in which they are particularly interested and competent. There one can see well-

known authorities who have themselves given three or four courses during the session, during other periods, when not occupied with teaching, sitting as students under colleagues to whose special work they are attracted, and there, as fellow students, taking part in the discussions. The afternoons of the meeting were devoted to the general sessions, with papers and round-table discussions, or film presentations of operative procedures. These features, we believe, are worthy of mention, because the same urge that leads specialists to meet every year and exchange views should and does exist among physicians in general practice, to whom, unfortunately, the facilities extended by the larger specialty organizations have not everywhere in the past been made adequately available.

\* \* \*

**California Courses Will Be Given at Central Local Places.**—The California Medical Association now proposes to offer opportunities for members who take an interest in the newer work in medicine and surgery, and who desire to check again also, in conference with fellow workers from other centers, on methods tried and true; and to do this, not by asking men and women busy in local practice to lose time by leaving home, but to make arrangements at the very doors of all who aspire to such study, to enable them to continue in touch with that spirit of progress and improvement that is so distinctive of present-day medicine.

\* \* \*

**Postgraduate Plans Should Be Discussed by the County Societies.**—Members of the Association, therefore, are urged to scan the accompanying Supplement, and to bring the subject up for discussion at their next county society meeting. Suggestions will be gladly received by the State Association office, and all inquiries answered. With proper coöperation, the Postgraduate Study Plan can be made to become a great success in California, and also a valuable Association activity. To that end, the kindly interest and aid of members will be welcomed.

#### ANNUAL CONFERENCE OF STANDING COMMITTEES AND COUNTY SOCIETY SECRETARIES A SUCCESS

**Standing Committees Authorized in 1929.**—The present constitution and by-laws of the California Medical Association were adopted on May 8, 1929, at the Coronado annual session. In their original draft, as submitted two years before, and printed with the then-existing rules of organization in the August, 1927 issue of CALIFORNIA AND WESTERN MEDICINE, provision was made for the first time for a group of "standing committees," the Committee on Revision believing this to be preferable to having varying numbers of miscellaneous special committees annually and haphazardly come into being through adoption of resolutions for such by the House of Delegates. The group of fourteen standing committees thus brought into existence in 1929 were delegated with functions sufficiently broad, it was expected—to cover practically all phases of activity in organized and scientific medicine.

**Why the Plan Did Not Work Out in Practice.**—On paper, the outline seemed sound, but in years since 1929, in spite of staggering provisions for each committee, whereby one member of the executive group of three would be elected each year, it was found that the plan did not work out well in practice. Analysis of the situation disclosed that the fault was probably due to the territorial bigness of the State of California, because of which it was not only difficult, but expensive, for committee members to meet between annual sessions. As a consequence, the important business outlined for each committee in the by-laws was only occasionally taken up in active fashion, necessitating reference to the Council, or to the later-authorized Committee on Public Relations, which came to be, in part, because the other standing committees were not functioning in proper manner.

\* \* \*

**Plan of a Midyear Meeting Authorized at Del Monte in May, 1937.**—This year, at the annual session in Del Monte, the House of Delegates gave the Council authority to call together, at a central meeting place, not only the county society secretaries, but members of standing committees of the Association; and the first of such meetings was held in San Francisco on Saturday, October 2, in joint session with the Council. President-elect Irvin Abell of the American Medical Association was the guest speaker, and gave an inspiring address on the work of scientific and organized medicine.

\* \* \*

**This Year's Conference Measured Up to Expectations.**—The new procedure fully demonstrated its worth in its initial meeting, and each year's repetition will undoubtedly add to its value, as the hold-over committee members become more experienced in carrying on the work intrusted to them in the by-laws.

In a state with an area so large as California, that half a dozen eastern commonwealths could be placed within its borders, and with a great number of citizens having widely diverse characteristics, it is important, if the standards of scientific medicine are to be properly upheld, that Association members who have been elected or appointed to official positions in the State Association or county units shall have ample opportunity to meet and contact one another, and so, through joint conference, come to conclusions on the best ways and means to promote the public health and the interests in California of scientific medicine.

That is precisely what the October 2 conference of the State Association officers and committees and county society secretaries accomplished, and it is to be hoped that committee members will maintain the interest once created and the good work there started, by for example, keeping up a correspondence on their respective duties, so that, for the 1938 annual session of the Association, the committee reports—to be printed in the Pre-Convention Bulletin—will give evidence of real progress. Through such united action and perhaps

only by means of such spirited coöperation, much good may be realized.

**Other State Association and Component County Society News.**—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 336.

## EDITORIAL COMMENT†

### THE PINEAL BODY

Except for anatomical data regarding this structure, our knowledge is very meager. Most of what is purported to be known is nothing more than pure inference. When a system of endocrine glands was recognized, the pineal was included as a lesser light, though no *direct* evidence justified the inclusion. Certain tumors of the pineal were known to be associated with sexual precocity and hypertrichosis in male children. The fact that these tumors were essentially teratoid in type, thus differing considerably from the normal structure, appears not to have prevented the acceptance of the normal pineal as an endocrine gland.

If endocrine gland it is (and we can infer physiologic activity from the histologic appearance of the cells—commonly done with thyroid, breast, adrenal, endometrium, etc.), then activity persists at all ages, since it is not possible to distinguish with certainty one age group from another. Even the deposition of calcium is widely variable in amount and time of appearance. The calcium masses occur in immediate contact with the pineal cells, but there is no evidence of reaction to their presence. The situation of these deposits and their appearance is unlike calcium deposition elsewhere, where factors of tissue injury, necrosis, fibrosis, ischemia, or hyperparathyroidism are involved. It is conceivable that the chemical reactions of the pineal tissue are particularly suitable for the deposition of this substance. The presence of calcium in the pineal does not appear to influence the integrity of the adjacent cells, which look as capable of physiologic function as cells removed from such contact.

If normal pineal influences are as "vital" as the pineal tumor syndrome would suggest, removal of this structure in experimental animals should be followed by unmistakable effects on the sex organs and body development. This has not been the case. While there are some workers who claim effects of this sort after pinealectomy, the changes are slight and of questionable significance in the light of numerous reports to the contrary. Other workers using extracts of pineal tissue have claimed certain sex- and body-weight effects when given to several generations of offspring of treated animals; but other extracts similarly prepared have not been

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

active. The effect of multiple pineal tissue implants appears not to have been adequately tested.

Because cumulative effects have been claimed when administration of extract was continued through several generations, it was thought wise to create a deficiency by pinealectomy in the offspring of pinealectomized parents. This should produce a cumulative deficiency. The experiment was without positive results. Carefully controlled observations on growth and maturity failed to reveal a difference from the normal.

But what practical conclusion can be drawn for medical practitioners? Only this, that the endocrine nature of the pineal is far from proved, and that, assuming such a function, so little effect can be produced with extracts in one generation of experimental animals, where relatively large doses can be employed in relation to their size, that it is presumptuous and doubtless futile to attempt to bring about any desired change in humans by the administration of any known pineal preparation.

San Diego County General Hospital.

HOWARD A. BALL,  
San Diego.

#### NUTRITIONAL FACTORS IN MALIGNANT GROWTHS

The dietary requirement for certain amino-acids essential to normal nutrition has long been established. It remained for Osborne and Mendel to distinguish those amino-acids essential for normal growth, from those required for maintenance.<sup>1</sup> Of the twenty-two known amino-acids which, in various proportions, go to make up the complex structure of the protein molecule, some eight or nine must be supplied to the organism in the diet; the remainder can be synthesized by the tissues from simpler nitrogenous compounds. Osborne and Mendel clearly demonstrated that, while lysin is a normal constituent of body proteins, its requirement for maintenance of the ordinary wear and tear of adult tissues is minimal. However, the conditions for rapid synthesis of new tissue protein incident to normal growth greatly increase the requirement for this particular amino-acid. In short, they found that if lysin in the diet of healthy growing rats was reduced to the low level required for maintenance of fully mature rats, growth ceased; whereas, when lysin was added to such diets, growth was resumed. Thus, lysin was distinguished as essentially a growth factor. It has since been shown that cystin plays a similar rôle in the diet.

With these facts established for normal growth the question arose whether malignant tumors, which are characterized by a rapid synthesis of new proteins, follow this same pattern. If the growth of neoplastic tissues can be retarded by restricting or eliminating the intake of these growth factors in the diets of the host, a new weapon would be available for controlling these abnormal growths. This problem was first outlined by the present writer in 1915.<sup>2</sup> As a preliminary to our investigation of this problem, a quantitative analysis was

made of various types of malignant tumor tissue for their content in lysin and related amino-acids. It was found that the yields of lysin, arginin, and histidin are over 100 per cent greater than those obtained on hydrolysis of normal somadic tissue. Our paper concludes with the statement: "These results suggest a new approach to the cancer problem, especially as it relates to metabolism." At the time this work was carried out in 1915 no laboratory animals suitable for experimental work on this problem were available. In lieu of such desirable preliminary experiments on animals, we carried out limited experiments on human cancer patients. Gliadin, one of the proteins of wheat, having a very low lysin content, was used as the sole source of protein. Calorie and vitamin requirements were supplied by starch, butter, lettuce, orange and tomato juice. In spite of the seemingly favorable results in the few cases studied, this work had to be discontinued because of the lack of facilities for preparing gliadin in sufficient quantities. This work was not reported in detail. Of record is the following: "An effort has been made to feed certain human cancer cases on a diet free from these substances (hexone bases), with the hope that the cancer tissue might be starved out. Its needs for growth are probably proportional to the rapidity of its extension throughout the body."<sup>3</sup>

More recently, with the development of new strains of laboratory animals, particularly those showing spontaneous malignant tumors, interest in this phase of the nutrition of malignant tumors has been revived by the work of Courrier and Coste in France (1934)<sup>4</sup> and Voegtlin and Thompson,<sup>5</sup> and Voegtlin and Maver (1936)<sup>6</sup> in this country. Courrier and Coste fed rats carrying the transplanted Jensen sarcoma on a diet in which gliadin formed the chief source of protein. They reported a marked retardation of the tumor growth in rats fed on this diet, and attributed the inhibited growth to the low lysin content of the diet. Voegtlin and Maver have criticized this work on the grounds that they failed to prove a growth response by the addition of lysin to the diet following the period of retardation. Nevertheless, the animals on the stock diet showed rapid tumor growth, and this tumor growth was inhibited in animals on the gliadin diet. And gliadin is a protein low in the amino-acid lysin and has been shown to be adequate for maintenance of adult animal tissue. Voegtlin and Maver, using the Marsh strain of mice in which over 90 per cent of the females develop spontaneous mammary carcinoma, added the refinement to their technique of adding pure crystalline lysin to the diets following the period of retarded growth on the gliadin diet, and observed renewed growth, thus doubly proving that

<sup>3</sup> University of California Bulletin, Third Series, Vol. X, No. 6, p. 125, 1916.

<sup>4</sup> Courrier, R., and Coste, G.: *Compt. rend. Soc. de biol.*, 115:631, 1934.

<sup>5</sup> Voegtlin, Carl, and Thompson, J. W.: *Pub. Health Rep.*, Vol. 51, No. 42, p. 1429, 1936.

<sup>6</sup> Voegtlin, Carl, and Maver, M. E.: *U. S. Pub. Health Rep.*, Vol. 51, No. 42, p. 1436, 1936.

<sup>1</sup> Osborne, T. B., and Mendel, L. B.: *J. Biol. Chem.*, 17:325, 1914; 25:1, 1916.

<sup>2</sup> Kocher, R. A.: *J. Biol. Chem.*, 22:295, 1915.

lysine was the limiting factor. In subsequent experiments, Voegtlin, Johnson, and Thompson,<sup>7</sup> using the same strain of mice, found that the amino-acid cystine or its compounds, methionine and glutathione, when reduced to a low level in the diet, cause a retardation in tumor growth; when these are again added to the diet, growth continues at the previous rate.

From this work it may be concluded that certain amino-acids, as lysine and cystine, previously known to be necessary for normal growth in rats or mice, are likewise necessary for growth of malignant tissue in these animals. It may be assumed, on the basis of these experiments, as well as on the analyses of malignant tissues, that these amino-acids are required for the synthesis of new proteins, that they cannot be synthesized by the animal organism, nor, in the case of malignant neoplasms in mice, is body tissue broken down to supply this requirement. For the continuance of normal as well as abnormal growth in laboratory animals, these "growth amino-acids" must be supplied in the diet in sufficient amounts (greater than required for maintenance) to provide for new protein synthesis.

Whether this research with animal tumors will prove applicable to human cancer treatment it is too early to predict. Certainly, the diets so far used in the experiments reported on mice are not suitable for human consumption. This writer has recently arranged certain diets low in lysine, but adequate in other respects, which may prove useful for experimentation in certain selected cancer patients where other measures have failed. These diets have been tested out in normal subjects for sufficient periods to show that healthy nutrition, as well as nitrogen balance, can be maintained.\* Only a statistical study over a period of years on a great many patients would prove adequate to the question of whether human malignancy could be favorably influenced by such a dietary regimen.

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### SYNERGIC IMMUNITY

The demonstrated clinical success of antirabies vaccine and diphtheria antiserum in the closing years of the nineteenth century gave rise to the hope that similar methods of immunization would afford equal control of other infectious diseases. Subsequent clinical failure of so many other vaccines and antisera did not completely destroy this hope. Failure was conceivably due to correctable errors in the preparation of corresponding antigens or antisera. During recent years, therefore, improved technical methods have been sought by numerous research workers. Fractionation of complex bacterial proteins into active components and mechanical methods of obtaining undenatured bacterial proteins have led to encouraging results in experimental animals.

<sup>7</sup> Voegtlin, Carl, and Johnson, J. M.: U. S. Pub. Health Rep., Vol. 51, No. 49, p. 1689, 1936.

\* Reference to article not yet published.

A second method of improving routine vaccine technique have been attempts to combine vaccine therapy, or serum therapy, with intravenously injected catalysers, coenzymes or tissue activators. The first important group of "catalysers" studied for their hoped-for additive immunological effects were certain metal salts. Walker and Ainley,<sup>1</sup> for example, found that intravenous injections of certain arsenicals would markedly increase specific agglutinin production in rabbits. Walbum,<sup>2,3</sup> reported similar stimulating effects following intravenous injection with manganese, nickel, cobalt or zinc salts. He found, for example, that intravenous injection of  $MnCl_2$ , following or accompanying routine doses of vaccines or antisera, would actively or passively immunize rabbits against multilethal doses of the corresponding toxic or infectious agents. Control rabbits injected with the same vaccines or antisera, but without the accompanying salt therapy, failed to develop an adequate immunity. In his hands, however, the immunity-stimulating effect of  $MnCl_2$  is absolutely dependent upon dosage. Small doses and excessive doses are equally ineffective.

Combined metal-salt therapy and vaccine therapy, however, has not been endorsed by all other investigators for clinical adoption. Mackie<sup>4</sup> and his coworkers of the University of Edinburgh, for instance, found that while an occasional rabbit injected with the recommended dose of beryllium chloride showed a twentyfold increase in specific antibody production, most of his rabbits showed negligible antibody changes. In some rabbits there was even a marked decrease in antibody titer or production, from which recovery did not take place. Hektoen and Corper<sup>5</sup> showed that part of this variability may be due to variations in the time of injection of the metal salts. "Thorium-X," for example, injected in the early stages of specific precipitin production, markedly decreases antibody yield. Injected at a later stage, however, this substance is without demonstrable antibody effects.

A more promising method of increasing specific antibody yield was afterward discovered by Doctor Burky<sup>6</sup> of Johns Hopkins University. It is almost impossible<sup>7</sup> to produce specific precipitins for lens proteins in rabbits by attempted active immunization against lens substance. Burky found that the apparently nonantigenic lens substance can be changed to an effective antigen by combining it with staphylococcus filtrate, or with certain other bacterial toxins. Relatively nonantigenic pollen proteins can be rendered actively antigenic by such combination. Rabbits may be even sensitized to their own muscle proteins by such synergic techniques.

<sup>1</sup> Walker: Med. Res. Council. Ser., No. 55. London, 1920.

<sup>2</sup> Walbum, L. E.: Det. kgl. Danske Vidensk. Selskab. Biol. Medd., III, 6, 1921. C. rend. de la Soc. Biol., 80:761, 1921.

<sup>3</sup> Walbum, L. E.: Ztschr. f. Immunitätsforsch., 49:538, 1926.

<sup>4</sup> Mackie, T. J.: J. Hyg., 24:176, 1925.

<sup>5</sup> Hektoen, L., and Corper, H. J.: J. Infect. Dis., 26:330, 1920.

<sup>6</sup> Burky, E. L.: J. Allergy, 5:466, 1934.

<sup>7</sup> Braun, R.: Arch. f. Augenh., 105:122, 1931; 106:99, 1932.

Doctor Burky's synergic immunity has been studied in greater detail by Doctors Swift and Schultz<sup>8</sup> of the Rockefeller Institute. The New York investigators found that the synergic effect of staphylococcus toxin could be demonstrated without mixing nonantigenic proteins with the toxin. Protein and toxin could be injected separately into different veins, or into the same vein with several hours' interval between injections, and still lead to the production of high-titer antiprotein precipitins. To explain this synergic effect, they postulate that the intravenously injected toxin exerts a stimulating action on the antibody-producing tissues, a "synergic conditioning" of the specific immunity mechanism. A somewhat more complex theory is proposed by Picado,<sup>9</sup> who has studied a wide range of other synergic phenomena. According to his theory the increased antibody titer caused by intravenously injected toxin is not due to a stimulation of normal antibody production, but to a chemical perversion or transformation ("deviation hiérarchique") of preëxisting humoral factor. His synergic antibodies, therefore, are abnormal serological products of questionable clinical value.

The synergic phenomena of greatest theoretical interest at the present time, however, is the conceived possibility of stimulating the production of natural antibody by intravenous injections with certain normal tissue stimulants or activities, such as vitamins and hormones. Encouraging results have been reported. Juszatz,<sup>10</sup> for example, alleges that if 100 milligrams of cevitic acid is injected intravenously into a rabbit, this natural vitamin will increase specific precipitin production tenfold. This vitamin is equally effective if mixed with routine vaccines (*e. g.*, horse protein). Doctors Steinbach and Klein<sup>11</sup> of Columbia University report that daily intravenous injections of pregnancy hormone ("antuitrin S") favors the development of an effective immunity in tuberculous rabbits. In their hands the severity of an experimental tuberculous infection is reduced fully two-thirds by this hormone. Complete cures, however, have not yet been reported by them.

Broadening of the field of vaccine therapy and serum therapy to include the adjuvant immunizing powers of vitamins and hormones, is conceivably the most promising advance in immunological technique of recent years. Unfortunately, it is almost inevitable that the new plausibilities thus suggested will be followed by commercial exploitation. Clinicians should remember in this connection the exploded plausibilities of "leukocytic extract" and "bacteriophage" therapy.

Box 51.

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<sup>8</sup> Swift, H. F., and Schultz, M. P.: *J. Exp. Med.*, 63:703-725, 1936.

<sup>9</sup> Picado, C.: *Ann. Inst. Pasteur*, 56:186, 1936.

<sup>10</sup> Juszatz, H. L.: *Ztschr. f. Immunitätsforsch.*, 88:472-483, 1936.

<sup>11</sup> Steinbach, M. M., and Klein, S. J.: *J. Exp. Med.*, 65:205, 1937.

### CESAREAN SECTION

Why are so many cesarean sections being done? Is it because the indications for cesarean sections have changed? Are women different today from what they were one hundred years ago? Is there no mortality with laparotrachelotomy?

The answer is, no. The indications for cesarean section have not changed. Cesarean section should be performed for disproportion between fetus and pelvis; contracted pelvis, previous cesarean section and, in some instances, for placenta previa and toxemias. However, the number of cesarean sections that are being performed without proper indications is really appalling. Bell, in his survey of maternal mortality for the Bay County region, has shown that in some hospitals the incidence was as high as 17 per cent, and mortality rate in some instances 12 per cent.

Thus, we see that cesarean section certainly carries a mortality rate, and one should wait for proper indications before doing the same. Of course one will say that if you wait too long your case is infected and then your mortality rate goes up.

From statistical study and our own experience we find that the death rate increases one per cent with each hour in labor. These women die as a rule from wound infection, peritonitis, and hemorrhage. Thus, one sees that the ideal time to operate is early in labor, but only where indications are justifiable. The operation best suited is the low cervical cesarean section. The majority of cases of contracted pelvis fall into this category. But if we have cases that are potentially infected, in which a favorable outlook for mother and child seems hazardous by the vaginal or intraperitoneal route, then one should perform the extraperitoneal or Latzko cesarean. However, this operation is only indicated in patients that have been in labor a long time, and where the lower uterine segment is well developed. One, therefore, can give a patient a test of labor with impunity and, if necessity arises, do the Latzko operation.

350 Post Street.

ABRAHAM BERNSTEIN,  
San Francisco.

### CARCINOMA OF THE LUNG

Primary carcinoma of the lung occurs more frequently than any of us suspect. This disease at present appears in one per cent of all autopsies and makes up eight per cent of all cancer. The fifth and sixth decades are most vulnerable, the average age being fifty-one. In general, men are affected more often than women, the ratio being about 3.5:1.

The usual symptoms of carcinoma of the lung are cough, loss of weight, pain in the chest, and hemoptysis. When the growth occurs in a major bronchus, atelectasis of the distal lung soon ensues, due to the blocking of the air passage by the tumor. Infection frequently occurs in the atelectatic lung,

with a resultant bronchiectatic or abscess formation. Treatment in such a case often is directed toward the eradication of a chronic lung disorder, and the patient is relegated to a sanatorium without recognition of the true underlying pathology.

The bronchoscope and roentgen rays are our two most valuable diagnostic aids. The bronchoscope will detect over 75 per cent of these tumors and, even if the tumor is not visible, there are contributory findings suggestive of tumor, such as displacement of the trachea or narrowing of its lumen, widening of the carina, or a definite stiffness and induration of this region, which is readily recognizable to the experienced bronchoscopist.

Neoplasms occurring in an organ as richly supplied with blood and lymph channels as the lung would be expected to metastasize early, and unfortunately such is the case in the tumor under discussion. Metastases are found most frequently in the liver, brain, and adrenals.

Successful treatment, therefore, depends upon early diagnosis. The latter can only be made if the lesion is constantly in the examiner's mind. A good working principle, it seems to me, in a patient past forty years of age presenting the symptoms of cough and pain in the chest, and often hemoptysis, is that this patient has carcinoma of the lung, until the diagnosis is proved to be otherwise.

Thoracic surgery has today advanced to the point where removal of a single lobe or even all of one lung is not a forbidding procedure because of the high operative mortality. If the operation can be carried out upon a suitable operative risk, the chances of recovery are excellent. Past experience in the treatment of unilateral pulmonary tuberculosis by total thoracoplasty has shown us how efficiently a single lung can satisfy the respiratory needs of the individual.

Roentgen therapy is as important in the treatment of carcinoma of the lung as the surgical removal of the tumor. Those cases presenting a picture of infection in the lung due to the blocking of the tumor will be greatly improved by roentgen treatment. The bronchus will open up following irradiation, improved drainage of the diseased lung results, and a marked general improvement in the patient is observed. The roentgen therapy can be delivered both by deep radiation and the intra-bronchial application of so-called radium bombs. It is not an uncommon observation to see a complete disappearance of the lung tumor following radiation. We have also observed at postmortem examination a complete absence of any cancer in a lung which has been irradiated, and from which a positive biopsy had been obtained before the roentgen treatment.

Carcinoma of the lung must be kept alive in the doctor's mind, because this condition is not uncommon. An early diagnosis must be made if therapy is to be efficacious. Surgery and the roentgen ray are satisfactory therapeutic agents when employed early in the disease.

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H. BRODIE STEPHENS,  
San Francisco.

## ORIGINAL ARTICLES

### PSEUDOBILIARY DYSKINESIA\*

By STANLEY H. MENTZER, M.D.  
San Francisco

Discussion by Donald C. Collins, M.D., Los Angeles;  
Bert S. Thomas, M.D., Sacramento.

**T**HOUGH biliary dyskinesia is a relatively new clinical entity, it has become the most actively discussed subject in biliary tract disease. This is because of the work of Kitakoji, Shi, McGowan, Butsch and Walters, Schragger and Ivy, and Sandblom, who have shown that the time-honored methods of alleviating biliary colic are not satisfactory in some cases. The administration of morphin for the relief of pain of biliary origin increases, rather than decreases such pain if it arises from choledochal spasm. Inasmuch as gallstone colic and choledochal spasm simulate one another so closely clinically that they may not be distinguishable, much interest has been aroused by this new work.

#### COMMON-DUCT PRESSURE

The pressure in the common duct varies considerably, being almost zero when the sphincter is open and 300 millimeters or more when it is in spasm. Following the hypodermic administration of one-sixth of morphin, McGowan, Butsch, and Walters found that, within seven minutes, the intraductal pressure rose to 320 millimeters and maintained this pressure for fifteen minutes. It then fell to 140 millimeters, where it remained for two hours. Pain was usually felt during this period, but the pain could be rapidly relieved and the pressure made to fall within a few moments by the inhalation of amyl nitrite or the administration of glyceryl trinitrate (nitroglycerin) orally.

#### ANATOMIC AND PHYSIOLOGIC CONSIDERATIONS

The explanation for these phenomena dates back to the early work of Glisson, Gage, Oddi, Hendrickson, Theile and Beale, and the more recent work of Mann and Giordano, who showed that smooth muscle fibers are arranged in a definite sphincter-like arrangement about the terminal end of the common duct. DuBois and Hunt demonstrated these fibers most distinctly in the opossum, and Boyden has shown that in man these constricting fibers may be above as well as below the ampulla of Vater.

Although in the past there has been much controversy over the manner of insertion of the common duct into the duodenum and the arrangement of the muscle fibers constituting the sphincter of Oddi, recent work has amply verified the anatomical studies and the theories of three hundred years ago. In brief, these may be reviewed as follows: the common duct is composed mainly of non-contractile elements, its bulk being made up of elastic tissue with only an occasional and irregu-

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larly placed smooth muscle fiber. Near the terminal end of the choledochus, an ampulla is present in which there are some circular muscle fibers, but the major arrangement is one of longitudinal muscle bundles which exert a forward and backward movement. It is these fibers which are responsible for the many contradictions in experimental work, substantiating and denying peristaltic movements of the choledochus. Potter and Mann showed that peristaltic movements could be obtained on kymographic records, and Puestow demonstrated the intermittent ejection of bile from the orifice of the sphincter. Furthermore, the sphincter has been visible in a widely opened state, yet no bile exuded from the common duct. These seeming contradictions are explained by recent interpretations of previously described anatomical facts in that the circular fibers above the ampulla are adequate to withstand some of the intraductal pressure. The propulsion of the papilla into the duodenum and the peristaltic-like movements that occur are due to the intermittent action of the longitudinal muscle fibers in the ampulla.

The circular muscle fibers in the terminal end of the papilla may act independently of the muscle fibers of the ampulla. They are the fibers that Oddi best described in 1887. In man these fibers are able to withstand the secretory pressure of the liver, 300 millimeters of water and, in addition, moderate contractile powers of the gall bladder. In animals, however, they are sometimes meager and often absent. The combined circulatory fibers above and below the ampulla function in relative unison to provide a competent sphincter in man and in some animals.

#### RECENT STUDIES

Although these anatomical facts are substantiated by the most recent work, physiologists are not in accord as to the physiological action of the sphincter. It is agreed that the sphincter can open and close, but the stimuli necessary for these functions are not satisfactorily determined. The sympathetics relax the sphincter and the parasympathetics cause spasm. For this reason atropin releases the tonus and pilocarpin may increase it. But hormonal action of the secretin-cholecystokinin mixture also causes spasm of the sphincter. Furthermore, psychic phenomena influence the sphincter as Puestow has shown, the open sphincter of the dog suddenly closing and preventing the flow of bile for minutes to even hours when a stranger enters the room. Nanu-Muscel and Pavel maintain that fright can cause sufficient spasm to produce jaundice, and they cite several laparotomies with negative findings in jaundiced patients as evidence.

It is quite certain that active respirations, muscular activity and duodenal contractions permit spurts of bile to pass through the sphincter, and it seems definitely proved that duodenitis, gastritis, distention of the stomach, and starvation increase the tonus of the sphincter. Inflammations and mechanical irritations definitely affect the sphincter. Deissler and Higgins have shown that anaphylactic reactions cause a spasm of the circular muscle fibers. Acids increase the tone of the sphincter and alkalies sometimes release it. Pribram ven-

tured to postulate that cold drinks could provoke a spasm of the sphincter.

There are conflicts in the data, both from the experimental laboratories and from clinical observations, which need clarification before we can adequately interpret the activities of the sphincter. Ivy and Sandblom reported nineteen patients who had pain in the epigastrium ten minutes after secretin-cholecystokinin had been given intravenously. The administration of magnesium sulphate via a duodenal tube relieved the distress and caused the appearance of dark bile. Lyon and his students indorse these observations. Other workers were unable to note any effect from magnesium sulphate even when it was applied directly to the papilla in open-window experiments. Similar contradictions appear in the use of drugs for provoking or releasing spasm of the sphincter, and proteins, fats, and carbohydrates have been accused of causing spasm as well as releasing it.

Unanimity is not present as to the pressures necessary to open the closed sphincter. Some authors maintain that pressures of 125 millimeters of water in the common duct caused the sphincter to open, while others find that 300 millimeters or more may be necessary. These contradictions appear to be due to the use of animals in experimental studies and to the use of diseased structures when human studies are made. It is not reasonably possible to derive information in any other way, but these very hindrances are responsible for much of the conflicting data.

#### BILIARY DUCT SPASM

Clinical diagnoses of biliary duct spasm have been made without an adequate foundation on which to judge the normal. It is presumed that spasm of the sphincter causes distress. In Schrager and Ivy's work, the dog manifested symptoms of distress when pressures of 70 millimeters of water were exerted in the common duct. Yet the sphincter of Oddi can withstand pressures five times as great, and even the secretory pressure of the liver may be more than three times as great. Under normal conditions, pressures greater than 70 millimeters of water are present. Butsch, McGowan, and Walters noted that pain was complained of when the intraductal pressure rose to 200 or 300 millimeters of water after morphin administrations; but the intraductal pressure may be raised twice as high in some patients without causing distress.

Many instances are cited in the literature of "spasm" of the sphincter when no fluid passes out of the common duct for fifteen minutes, or shorter intervals. Yet Puestow showed that no bile might flow from the sphincter for much longer periods under normal circumstances. We obviously have no standard for normalcy, and until such can be established we should be hesitant about applying diagnoses of spasm of the sphincter of Oddi.

More pertinent, however, is the problem connected with the diagnosis of spasm when spasm is frankly evident. How shall the diagnosis be expressed? This subject was introduced to clinical medicine in 1922, when John Berg stated that functional disturbances could produce stasis in the bile

ducts. He noted hypertrophy of the muscle at the terminal end of the common duct, and he ascribed the stasis to it. Aschoff and Bacmeister had suggested that sphincter spasm might produce stasis of bile in the gall bladder and be responsible for the formation of the pure cholesterol stone. Westphal, in 1923, utilized these conceptions in relation to both the gall bladder and common duct, and named this new entity biliary dyskinesia, postulating that it was a functional spasm occurring in the absence of organic disease. Pribram expressed the functional nature of biliary dyskinesia in a precise way when he said that the sphincter of Oddi has an inclination for spasm if the patient is constitutionally inclined to spasms generally. The original conception of Westphal included descriptions of atonic and hypertonic muscle tissue in the gall bladder as well as the common duct, but the practical residuum of his thesis has been the consideration of hypertonic activity of the choledochal sphincter.

Many others had proffered the belief, and even proof, that the sphincter of Oddi could become spastic, Oddi in 1887 and Meltzer in 1917 making the major contributions. But these writers described spasm secondary to organic disease of the bile ducts or gall bladder. An abundance of evidence has accumulated which proves that the choledochal sphincter may react spastically secondary to organic disease. There is also substantial proof that the sphincter may become spastic under certain emotional and functional states. The problem clinically is to distinguish the spasms of functional origin from those secondary to organic disease.

#### • PRESENT STATUS OF BILIARY DYSKINESIA

Until recently the medical world has been slow to accept biliary dyskinesia as an entity. We are now, however, in the midst of a wave of enthusiasm which has swung the pendulum of acceptance to unwarranted degrees. As an illustration, the literature relative to the incidence of stones in the common duct, in association with stones in the gall bladder, shows, as Bonn has pointed out, that each fifth case, at least, of cholelithiasis is accompanied by choledocholithiasis. Yet how often is the common duct explored when the gall bladder is removed for stones? In a few large clinics the common duct is opened in 20 to 30 per cent of the cases; in average practice, Bonn ventures that only a tenth or a twentieth of the common ducts are explored. Does it not seem likely that some of the cases of "biliary dyskinesia" are in reality overlooked stones, if we judge by the incidence of the two lesions? No inclusion is made in this hypothetical question of the incidence of cholangitis, stricture, intraductal or extraductal tumor obstructions, or duodenitis. If these were also considered, the incidence of biliary dyskinesia should be even less. We have no facts upon which to base the incidence of biliary dyskinesia. But of forty-odd cases reported in the literature to date, thirty-two are not true dyskinesias.

#### COMMENT

Since 1903, when Kruckenberg cited his case of "gall-stone colic" in a patient who had a normal

biliary apparatus, surgeons have repeatedly reported instances of colic, qualitative food distress and belching in patients who have no demonstrable evidence of gross biliary tract disease. Even with minor grades of inflammatory change, the clinical syndrome typical of biliary tract disorders has been frequently elicited. The mechanism of these disturbances is not understood, and some writers ascribe the symptomatology to functional spasms of the sphincter of Oddi. Likewise, the metabolic disturbances in the gall bladder have been characterized by colic and indigestion in the absence of stone. Judd and Mentzer, in 1926, showed in a study of one thousand patients who had cholesterosis of the gall bladder, half of whom had gallstones, that colics were almost as frequent in the stone-free as in the stone cases. Yet cholecystectomy completely relieved many of these patients. The mechanism of relief is not known, but as many of the patients were given morphin before operation it seems possible, in retrospect, that dyskinesia was the basis for the distress. The fact that sphincteric action is lost temporarily after removal of the gall bladder also lends support to this possibility.

Visual proof of spasm of the choledochal sphincter has been shown by choledochography after tube drainage of the common duct. The injection of opaque substances (brominol, lipiodol, or hippuran) into the bile ducts through a T-tube has shown retentions of these opaque fluids at the sphincter for minutes, hours, and even days. Almost all such observations have been made in patients who had organic disease of the biliary apparatus. I have injected the common duct with a needle technique while operating for other intra-abdominal lesions, and have noted retentions for hours when infiltration novocain anesthesia alone has been used.

#### CONFUSING NOMENCLATURE

It is unfortunate that the term "biliary dyskinesia" has been applied to cases in which spasm of the sphincter was secondary to choledocholithiasis, cholelithiasis, cholangitis, stenosis, mechanical obstructions by blood clot, mucus, biliary sand, parasites, sphincteritis, and duodenitis. The degree to which spasm may be induced secondarily was shown by the experimental work of Crain and Walsh. The emptying time of the gall bladder of dogs is normally one to two hours, after a fat meal, but this was increased to four to six hours when duodenitis was present. Strauss recorded twenty-two instances of dilatation of the extrahepatic bile ducts in humans at operation, some with cholangitis, but with no evidence of an obstructive nature other than duodenitis. Small tumors of the bile ducts are the most difficult of all to differentiate from sphincterismus. The obvious impossibility of delineating many of these lesions, even at the operating table, should make us hesitant to apply a diagnosis of biliary dyskinesia clinically.

#### BILIARY DYSKINESIA AS A CLINICAL ENTITY

Are we justified in diagnosing biliary dyskinesia when the spasm in the sphincter is secondary to

organic disease? If we are to keep the term "biliary dyskinesia" as a clinical entity, we must restrict our application of it to those instances in which the diagnosis is justifiable. Westphal defined the syndrome as a spasm of functional origin, occurring in the absence of organic disease. Inasmuch as biliary dyskinesia, so defined, is a specific entity, it would be unfortunate to obscure its meaning by applying the diagnosis to other conditions. If it is desirable to indicate that spasm of the sphincter of Oddi is present in addition to some other lesion, then our diagnosis should be "cholangitis with sphincter spasm," or "choledocholithiasis with spasm of the sphincter," etc.

A review of the literature and some recent personal experiences indicate how loosely we use the term "biliary dyskinesia." During the past five months I have seen six patients who were treated for biliary dyskinesia. The symptoms were due to common-duct stones, cholangitis, or both, in four patients, and to carcinoma of the ampulla in one. Only one case warranted a presumptive diagnosis of dyskinesia, and that was later proved to be questionable.

#### CRITERIA FOR DIAGNOSIS

As the diagnosis of biliary dyskinesia cannot be made accurately other than by surgical drainage of the common duct and subsequent x-ray studies, it may be helpful to review our criteria for making the diagnosis by presumptive methods. The clinical history and duodenal intubation are most frequently relied upon. The clinical history of biliary dyskinesia may be indistinguishable from that presented by the patient having an "unusual" cholangitis, common-duct stone, stenosis of the duct, tumor or pancreatic lesion. The clinical manifestations of biliary dyskinesia are essentially those of spasmodic pain localized in the epigastrium or upper right abdomen, with or without accompanying indigestion. The pain may be colicky or simply a vague distress. It may be relieved within a few moments by inhalation of amyl nitrite or a tablet of nitroglycerin under the tongue; but so may the spasms secondary to organic disease. Thus the clinical history is not adequate for differentiating the functional from the organic spasms. Furthermore, the patient nervously unstable may also have organic disease, thus adding considerable difficulty to an evaluation of the lesion by means of the history.

#### DUODENAL LAVAGE

If we rely upon our interpretations of duodenal lavage, we must be thoroughly experienced in this technique. For most of us the technical details of the test are considerable and the interpretation of the specimens difficult. Multiple tests are necessary, for normal variations simulate dyskinesia with distressing accuracy. Bile is often delayed in its appearance, even after stimulation with magnesium sulphate or olive oil, yet the very nature of these substances used to promote biliary flow is that which also releases the sphincter. The element of time is utilized by some to determine whether the sphincter is in spasm, but this method presupposes that there is a normal period of evacu-

ation after stimulation. Unfortunately, the normal period extends well into the abnormal.

Some writers have suggested that when a delay has occurred in the appearance of bile with the Meltzer-Lyon technique, if the administration of amyl nitrate results in a prompt evacuation of bile we may assume that a spasm of the sphincter has been present. Many normal persons, however, have a delay in the appearance of bile. If we use magnesium sulphate as a stimulant and fail to get a flow of bile, but do have an expulsion after amyl nitrite, it is more suggestive but certainly not indicative of sphincter spasm, for organic lesions in the duct, as well as extraductal inflammations (pancreatitis), cause a similar reaction.

#### TONIC SPASM OF THE SPHINCTER

Colp states that one of the main reasons, aside from stones, for persistent biliary drainage after exploration of the common duct is a tonic spasm of the sphincter. My experience does not warrant such a presumption, for every persistent external fistula that I have seen has been due to organic obstruction. Nor can I subscribe to the many opinions expressed in the literature that spasm of the sphincter alone is responsible for jaundice or dilatation, of any moment, of the extrahepatic bile ducts. When jaundice or dilatation are found, they have invariably been due to organic obstructions, or to spasm secondary to organic lesions. The functional nature of biliary dyskinesia makes it problematical if a nervous spasm can be so marked or persist so long that some bile cannot eke through the sphincter.

#### ORGANIC AND FUNCTIONAL OBSTRUCTIONS

If there is a question as to the organic or functional nature of the obstruction, the external biliary fistula may be injected with brominol or other opaque solution as first suggested by Gabriel. Mirizzi utilized this method of making the diagnosis at operation by aspirating bile from the common duct with a needle and syringe and then injecting the duct through the same needle. Cholangiography thus performed at operation has the objection of misinterpretations caused by the effect of anesthesia. Hicken, Best, and Hunt showed that spinal anesthesia caused a spasm of the sphincter; functional spasms may thereby be simulated. The effect of ether on the sphincter is relaxing, and a true dyskinesia overlooked. When infiltration anesthesia alone is used, accurate results will obtain, as I have shown.

An indentation in the opaque shadow at the ampulla is usually adequate to establish the diagnosis of stone obstruction. When it is not obvious, amyl nitrite may be given; spasms will then relax, whereas organic obstructions will not be altered. If the spasm is secondary to organic disease, the spasm may be relaxed, but the outline of the duct will usually be such that organic disease is patently present. Organic obstructions are usually blunt, functional obstructions cone-like.

Occasionally, stones or detritus will be released after nitrite administration. I have twice released impacted stones in this way, and once succeeded

in washing "sand" out of the relaxed sphincter with saline solution. Pribram recommended the injection of two to three cubic centimeters of ether through the T-tube, and possibly it might be injected through an external sinus for the purpose of dissolving impacted stones. I utilized this method once for a period of four days, after which the stone passed and was recovered in the stool; the jaundice cleared and no further trouble developed. In two other instances I have dissolved sandy material in two days' application of the ether solution. The ether may be used in quantities up to four cubic centimeters, followed by sixty cubic centimeters of olive oil. This amount will cause some distress in some patients if it is given before the T-tube is well sealed off, for the solution is irritating to peritoneal tissues. Excess quantities of ether are dangerous, for the ether vaporizes at body temperature and causes an increase in the intraductal pressure. For this reason the T-tube should be left unclamped as a safety valve for the escape of vaporized ether.

#### PREVENTION OF POSTOPERATIVE SPHINCTER SPASM

Many attempts to prevent postoperative spasm of the sphincter have been made, utilizing small doses of magnesium sulphate orally, frequent small feedings of fat, medication with bile salts (preferably bile acids), atropin or amyl nitrite or nitroglycerin. More energetic efforts have been made by surgeons at operation, stretching the sphincter with a Mayo hemostat, dilating with Sim's urethral sounds or Bakes' dilators. In 1929, Del Valle and Donovan recommended section of the sphincter, and in 1936 Colp, Doubilet, and Gerber devised an instrument which they called a sphincterotome for severing the rim of the sphincter. Though of value in occasional cases, each of these methods has its hazard, as we have learned in the autopsy room. Meticulous care and an appreciation of the friable nature of diseased tissue must be relied upon in judging how much dilatation is possible. If the obstruction at the terminal end of the common duct is organic, such methods may be useful, although they are then more hazardous than the dilatation of normal tissue. If the obstruction is functional in nature, dilatation or sphincterotomy can be of temporary value only. In some instances, nature's repair of the incised sphincter is overdone, with a resultant polypoid overgrowth into the lumen of the duct.

Attempts have been made to control spasm by interrupting the nerve fibers to the sphincter. Weir and Snell reported instances of paravertebral block, and even two cases of section of the splanchnic nerves; but only moderate success followed.

#### TREATMENT

The treatment of biliary dyskinesia must be directed toward the entire nervous system of the patient. This ailment is one of body constitution in that nervous spasms are present generally. Psychiatric therapy is most important. It can be aided in the acute spasms by nitrite medication and in

the chronic spasms by frequent small feedings containing some fat and saline laxatives or bile acid adjuvants.

#### CONCLUSIONS

1. Biliary dyskinesia is a clinical entity.
2. It is due solely to functional spasms of the choledochal sphincter.
3. It is a relatively rare phenomenon.
4. It cannot be accurately diagnosed, except by the introduction of substances opaque to the x-ray via external biliary channels.
5. Many of the clinical diagnoses, with or without x-ray aid, are erroneous in that they are sphincterismus secondary to organic lesions.

450 Sutter Street.

#### DISCUSSION

DONALD C. COLLINS, M.D. (1930 Wilshire Boulevard, Los Angeles).—Dr. Stanley H. Mentzer has covered this subject so thoroughly that little remains to be added by anyone. We are all indebted to him for clarifying a most vague and nebulous clinical entity, which in the past has confused many of us as to its exact clinical boundaries.

I fully agree with the author that the diagnosis of true biliary dyskinesia should be strictly limited to those cases of proved true functional spasm of the common-duct sphincter. This diagnosis can only be accurately made by a process of exclusion of various organic disease processes of the common-duct; such as stone, stricture, inflammation, or tumor. These pathologic entities can only be excluded by visualizing the common duct by some radio-opaque substance, and by studying the resultant roentgenograms made of that area over a period of several hours. A careful search must always be made to rule out possible disease elsewhere in the biliary system or in adjacent organs, because such pathologic processes often cause a secondary pseudospasm of the sphincter of Oddi. The essential point to be remembered is that true biliary dyskinesia, while a separate and true clinical entity, is, nevertheless, a fairly rare condition.

I believe that most of us, in the past, have been guilty of making a diagnosis of biliary dyskinesia far too glibly and without sufficient study. As a result, common-duct stones, strictures, inflammations, or tumors have been deprived of proper early treatment for additional periods of time, because of the false sense of security that such a diagnosis of biliary dyskinesia gives one. Often this additional delay before the institution of proper treatment, was decidedly harmful to the patient, and in some instances was responsible for death.

I believe that Doctor Mentzer's presentation here today is a valuable contribution to our general advancing knowledge of medicine and will, as a result, allow us to go home and treat this general class of patients far more intelligently in the future.

✱

BERT S. THOMAS, M.D. (Physicians' Building, Sacramento).—When we realize that we have an area of proved responsiveness to so many and diverse organic influences as is the area of the sphincter of Oddi, it is quite apparent that we may only diagnose biliary dyskinesia by a definite process of elimination if we are to limit our usage of the term to Westphal's original definition: "a spasm of functional origin only." The very minute that we say "functional," we become involved in that relatively wide range of thresholds to emotional stimuli. This alone may well account for the too free usage of this diagnosis of a relatively rare and not too well explained clinical entity; for, most surely, the functionally unstable patient is going to have a low threshold to the most trivial organic factor, and such a patient may have a minimal organic disease.

I should like to rescue an overworked word of the past: after we have ruled out our confusing-like conditions by all the criteria that Mentzer so ably enumerates, may we not call this entity, "essential" sphincteritis (Oddi) of the nervously unstable? Such a fixed nomenclature would immediately point clearly and concisely to our weapons of treatment, and would rapidly turn us from the misuse of opiates in these cases and direct us to the more sound treatment as outlined in this excellent paper.

## SOCIAL SECURITY ACT: IN RELATION TO MATERNAL AND CHILD HEALTH\*

By ELLEN STADTMULLER, M.D.  
San Francisco

DISCUSSION by Oscar Reiss, M.D., Los Angeles; Clifford Sweet, M.D., Oakland

IN any discussion of maternal and child-health work under the Social Security Act, three sets of conditions need to be taken into consideration:

First, the provisions of the Act by which plans must be governed;

Second, health conditions and vital statistics indicating the special needs in maternal and child-health fields; and

Third, the fundamental activities of a maternal and child-hygiene program.

The question before us today, then, resolves itself into how the provisions expressed in the Act can be used to meet the needs of rural California by means of these fundamental activities.

### PROVISIONS OF THE SOCIAL SECURITY ACT

I. The Social Security Act, which became a law in August, 1935, not only establishes a system of federal old-age benefits, encourages the development of State unemployment compensation systems, and makes available to the states federal aid for administration of unemployment compensation laws and for old-age assistance, aid of the blind, vocational rehabilitation and the expansion of public health work, but also contains provisions designed to promote more directly the security of children. These provide for grants to the state, for aid to needy dependent children in their own homes, services to crippled children and services to children who are homeless, dependent, neglected or in danger of becoming delinquent. In addition, there are grants for maternal and child-health services to which this discussion is especially directed. The Children's Bureau, under the Secretary of Labor, will administer these child-welfare provisions, except the grants for aid to dependent children, in their own homes.

*Financial Allocations.*—The annual amount made available for maternal and child-health services is \$3,800,000 for the fiscal year of 1936 and for each fiscal year thereafter, and this amount is divided as follows:

1. Available for payment of half the total expenditures under approved plans are \$2,820,000, of which \$1,020,000 is for uniform apportionment to the states of \$20,000 to each state, and \$1,800,000 for apportionment on the basis of the proportion of live births in a state to all live births in the United States. This sum is known as Fund A.

2. Available for allotment according to the financial need of each state for assistance in carrying out the state plan, \$980,000. This Fund B takes into consideration economic needs within the state or special race or group problems.

*Approval of Plans.*—The state plans are to be approved by the Chief of the Children's Bureau if they conform with the following conditions:

First, financial participation by the state.

Second, administration of the plan or supervision of administration by the state health agency.

Third, such methods of administration as are necessary for the efficient operation of the plan. The Children's Bureau expressly waives methods of selection, tenure of office, and compensation of personnel.

Fourth, provision for reports by the state health agency on forms, and containing such information as required by the Secretary of Labor, and compliance with such provisions as the Secretary of Labor may from time to time find necessary to assure the correctness and verification of the reports.

*Additional Provisions.*—The three additional provisions are those which most nearly interest us at this moment:

Provision for the extension and improvement of local maternal and child-health services;

Provision for cooperation with medical, nursing and welfare groups and organizations; and

Provision for the development of demonstration services in needy areas and among groups in special need.

The term "state" is defined to include Alaska, Hawaii, and the District of Columbia.

### CALIFORNIA HEALTH CONDITIONS AND VITAL STATISTICS

II. In order to give a picture of the health conditions of mothers and babies in rural California, the accompanying maps are presented. These cover the average maternal and infant mortality for a period of five years, mortality rates being indicated by the key. By way of contrast, maps compiled by the Federal Children's Bureau from the statistics provided by the Bureau of the Census, showing California's status as compared with the other states are included. You will notice that, although California on the whole may be classified among those states with low maternal and infant mortality rates, there are counties in California which have much higher mortality rates than the State as a whole.

*Infant Mortality Rate.*—In regard to vital statistics in connection with maternal and child health, we may say that the infant mortality rate, said to be the most delicate index of health conditions, has gone down from 75 per thousand live births in 1920 to 49.5 in 1935, a reduction of 33⅓ per cent. When our state mortality rate is analyzed, it shows that early infant mortality—neonatal infant deaths—continues, without material reduction, year after year. Neonatal deaths are so closely bound to prenatal conditions that they can only be reduced by prevention exerted through the mother and by many of the same procedures and precautions that prevent maternal deaths.

*Maternal Mortality Rate.*—Our material mortality rate has declined from 5.7 per thousand live births in 1925 to 4.7 in 1935, a reduction of 16 plus per cent. Death rates from sepsis remain constant,

\*From the Bureau of Child Hygiene, California Department of Public Health, San Francisco.

Read before the Pediatric Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2-6, 1937.

See also page 356, in this issue.

TABLE 1.—*Maternity Home and Hospital Reports—Summary 1930-1935*

	Number of Live Births			Number of Maternal Deaths			Number of Infant Deaths			Number of Stillbirths		
	County Hos-pitals	Licensed Hos-pitals	Total in State	County Hos-pitals	Licensed Hos-pitals	Total in State	County Hos-pitals	Licensed Hos-pitals	Total in State	County Hos-pitals	Licensed Hos-pitals	Total in State
1930	6,002	42,387	84,382	50	145	443	205	844	4,945	277	1,132	2,427
1931	8,585	42,163	81,553	67	166	510	325	845	4,609	394	1,065	2,332
1932	11,322	38,958	78,108	79	99	448	542	796	4,125	454	887	2,153
1933	12,767	37,050	75,229	59	87	364	510	758	4,022	478	846	2,032
1934	12,781	39,391	78,442	59	108	346	648	800	4,047	440	809	1,874
1935	13,559	41,986	80,222	69	142	375	690	904	3,973	481	906	1,966

the decline having occurred in the group "puerperal causes other than sepsis."

In segregating these deaths into two groups—those delivered at home and those delivered in institutions—we have been aided by the fact that for many years the Bureau of Child Hygiene has had the responsibility of inspecting maternity homes and hospitals. As part of this inspection service we have received an annual report concerning the number of births occurring in these institutions; the deaths of mothers and of infants, with their causes, and the number of stillbirths; in addition, we have requested information upon the operative deliveries taking place within the institutions. In Table 1 you will see the figures which cover the licensed institutions in the State. They show that more than 65 per cent of the mothers in California are confined in institutions and away from their own homes. They show a gradually mounting number of deliveries in county hospitals. Within the period 1930 to 1935 county hospital deliveries have increased more than 100 per cent.

Over 16 per cent of the births in 1935 occurred in county hospitals; over 17.4 per cent of the infant deaths and 24 per cent of the stillbirths occurred in this group. The maternal mortality rate in county hospitals was 5 plus; the infant mortality rate was 50.9, contrasted with the figures 4.7 for maternal mortality for the State as a whole, and 49.5 for infant mortality.

#### FUNDAMENTAL ACTIVITIES IN A WORK PROGRAM

III. In discussing the fundamental activities of a maternal and child hygiene program, one necessarily emphasizes, first, the prenatal care of the expectant mother. In all the activities connected with the care of the mother, medical supervision is the great outstanding need with nurse instruction serving as a corollary to the physician in carrying out his plans for the mother. This is true not only in the prenatal period, but is essential in the whole plan of confinement care and postpartum service. The objective of this care is the prevention of complications and foreseeing of emergencies during pregnancy and confinement with the object of preventing maternal mortality, premature births, and stillbirths, so that the mother may survive her pregnancy in a sound condition, with the reward of a healthy child.

*Aim of the State Board of Health.*—The State Board of Public Health believes that the activities of the Bureau of Child Hygiene should be specially directed toward educating mothers to appreciate the services which the medical profession can render, and in advising, encouraging and urging mothers to seek this medical protection.

For the pediatrician, the program starts with the delivery of the mother, with the prevention of prematurity, the establishment of breast feeding, and the immediate care of the new-born. By Figure 4, you will see that at least 50 per cent of our infant mortality occurs within the first month of life, and again 50 per cent of this mortality occurs within the first ten days. The later benefits of pediatric care cannot affect this mortality to any considerable extent, since it depends largely upon premature birth, toxic conditions in the mother, inanition of the new-born, a very small portion being contributed by birth injuries and congenital abnormalities. Later mortality is dependent on communicable diseases, including respiratory and gastro-intestinal disease.

For the later care of infants, the establishment of regular habits of feeding, elimination, sleep and similar routine habits, with the supervision of growth, the prevention of communicable disease, and the gradual transfer from breast feeding to solid foods make up a large part of the care of the well child. These essentials have in them the elements of mental hygiene and, if properly conducted, meet many of the later problems of childhood which occur before the age of six years.

*Aid in the Rural Areas.*—How, then, can this program of fundamental activities be put to work in rural California to meet the needs of the State under the provisions of the Act?

Believing that the best means of educating a mother as to the needs of her child is the individual contact with the doctor, the program of prevention has centered itself in well-baby conferences conducted throughout the rural areas of the State, where no such facilities exist under public health auspices. The State has been districted into eight areas, to which a trained pediatric staff is assigned for conducting these conferences on a regularly worked-out schedule. As a necessary preliminary to this type of education, public health nursing activity prepares the ground and provides follow-up work. For those counties in the State that were without public health nursing service, personnel

TABLE 2.—California—Total Births, Maternal Mortality, Infant Mortality, Stillbirths, Segregated by Place of Birth, County Hospital, Maternity Institution, Private Home

	Number Live Births			Number Maternal Deaths			Number Infant Deaths			Number Stillbirths		
	County Hospital	Licensed Hospital	Total In State	County Hospital	Licensed Hospital	Total In State	County Hospital	Licensed Hospital	Total In State	County Hospital	Licensed Hospital	Total In State
1930	6,002	42,387	84,382	50	145	443	205	844	4,945	277	1,132	2,427
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has been provided. Wherever possible a joint budget has been arranged, so that the local community feels itself as having a vital interest in the health program. In addition to organizing and assisting at the conferences, the nurses are instructed by the visiting pediatrician as to the type of home visit needed, in this way carrying to the home the guiding influence of the medical work.

Since the infant death rate in California rides upon the Mexican mortality rate, we have assigned a special demonstration, with one of our physicians in charge, to the Southern California area serving this group of mothers exclusively; nursing service is also included. We feel entitled to make this special assignment in this area since the resident white population is under the supervision of full-time county health units, through whom they can derive the same service.

Another of these physicians is assigned to a special demonstration among the children of the migratory workers. California's agricultural situation is such that many people have resided in the State for years, and yet have no legal residence since they move so frequently, following the crops. The Fund B, which was mentioned in speaking of the Social Security Act, is being spent in California for a demonstration among this group of children, in the effort to give them prenatal and infant supervision. The physician in this area has the assistance of two nurses in this demonstration.

In addition to this type of education every opportunity for group education is taken advantage of, both by the nurse and by the visiting physician, in addresses to women's groups and in the distribution of literature.

*County Hospital Patients.*—The first point of attack in the protection of maternal health is an attempt to lower the mortality among mothers delivered in county hospitals by providing adequate prenatal care, and education of mothers to reduce the infant mortality which occurs through prematurity, toxemia, etc. Thirty-three of our fifty-eight counties provide no protection for the mothers delivered under county auspices, often the first contact with the case being the arrival of the mother in labor at the county hospital. Since the physician who actually does the confinement, as well as the agent responsible for admissions to the county hospital, must be consulted before plans of this type are put into effect, prenatal clinics are arranged county by county. Up to the present, five such new clinics have been established. Again, the physician assigned to the district is responsible for conducting these clinics, reports being made to the physician who will do the confinement. The nursing service is provided either by our own staff nurses or by the local public health nurses in the employ of the county.

In all of these conferences advice on the value of immunizations is given to the mother. The actual work of immunization is undertaken only at the request of the local health authorities. It should be especially stressed that in no instance do our physicians give treatments. All cases of this kind are referred to their own physician for care, our object being to aid the mother to carry out the procedures for which she is responsible and which contribute to the health of her child.

*Dental Defects.*—When any group of children is examined, dental defects contribute over 50 per cent to the list of handicaps. Carrying with them, as they do, a constant infection, they contribute largely to the lowered vitality and incidence of disease in the groups afflicted, especially in relation to infected tonsils and adenoids. With the idea of stressing the need for better diet in the prevention of dental defects, and of the part played by early care of small fissures in the enamel, a dental program is being undertaken which provides for complete surveys of the teeth of children in rural counties. Accompanying the survey will be as much educational work as possible on the proper diet, the need of care, and the benefit of early dental service. From the children surveyed those from three to ten years, inclusive, will be selected and their financial status checked under local guidance. The children whose



general with the same provisions which apply to the maternal and child-health funds. In addition, a Professional Advisory Committee and a Lay Advisory Committee are set up under the provision which calls for coöperation of medical, health, nursing, welfare, and educational groups and agencies. According to the present plan, the same committees serve for both types, with the addition of the necessary orthopedic members to the Professional Advisory Committee when it has to do with Crippled Children's activities.

A survey has been made throughout the State in coöperation with nurses, Bureau of Vital Statistics, Bureau of Epidemiology, Bureau of Child Hygiene, and Bureau of Tuberculosis. Other public officials having to do with children are requested to report all known cases. In addition, private agencies and organizations are likewise asked to coöperate in the survey.

Diagnostic clinics for the purpose of locating and giving treatment to crippled children have been held in eight counties. An orthopedic surgeon, a field nurse, and a medical social worker are attached to these clinics, at which physical examinations, with recommendations for treatment, are made by qualified orthopedic surgeons for all children brought to the clinic, regardless of financial condition. Children are segregated according to the ability of their parents and guardians to furnish proper care, and the medical histories of children requiring corrective measures are reviewed so that the length and time of hospitalization can be determined. Medical and social after-care and supervision will be given in all cases requiring corrective measures. In addition,

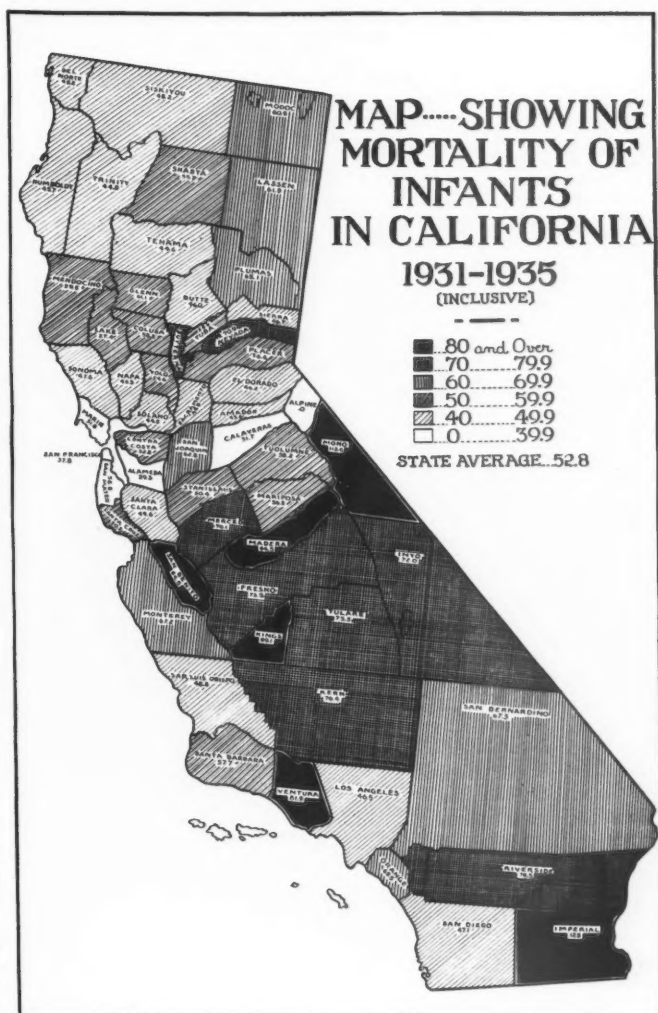


Fig. 2.—Infant mortality rates 1931-1935 (inclusive). Average rate for five-year period for each county.

Mortality in the First Month and the First Year of Life, United States and California, 1933  
From Specified Groups of Causes

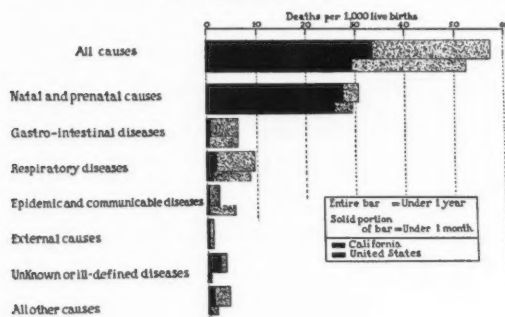


Fig. 4.—Infant mortality, 1933, in the first month and first year of life, from specified group of causes. Upper bar, United States registration area; lower bar, California.

tion, an educational program for the prevention of deformities and for the early treatment of crippled children will be undertaken.

To date, eight diagnostic clinics have been held under this plan, at which 502 children were examined. One-fifth of these were found to have orthopedic defects needing immediate correction, and one-tenth were advised to remain under orthopedic supervision.

This is an ambitious program, and its success will depend on the coöperation which is received from the local communities. To them and their interest this program will owe a great measure of its success.

State Board of Health,  
State Building, San Francisco.

#### DISCUSSION

OSCAR REISS, M.D. (1930 Wilshire Boulevard, Los Angeles).—The purpose of the Social Security Act, adopted by Congress and approved by the President,

August 14, 1935, is stated in the general title of the Act to be the following:

"To provide for the general welfare by establishing a system of federal old-age benefits, and by enabling the several states to make more adequate provision for aged persons, blind persons, dependent and crippled children, maternal and child welfare, public health, and the administration of their unemployment-compensation laws; to establish a Social Security Board; to raise revenue; and for other purposes."

Security for the American home and protection of the family life of the wage-earners is the broad foundation upon which the welfare of American children must rest. All of the social security measures may truthfully be described as child-welfare measures. There is an obvious relation between adequate wage levels and full regular employment sufficient to yield a stable and adequate family income, unemployment insurance (when full employment fails), provision for preventive health services, accident prevention, and similar social measures, and the welfare of the children. Even old-age security measures promote the welfare of children by lifting the burden of support of the aged from families whose resources are needed to care for growing boys and girls.

In addition to general measures for social security, certain special measures designed to promote the normal growth, development, and welfare of children are provided. The health and welfare of children have been adversely affected in many ways by the depression, not only through family distress resulting from unemployment and poverty, but also through curtailment of resources of agencies created to serve their needs.

The special measures designed to promote the security of children come under three headings, closely related to one another, namely, (1) measures for the care of the dependent, neglected, fatherless and homeless children, and children whose surroundings are such as gravely to impair their physical and social development; (2) crippled children; (3) measures for the protection of child and maternal health.

For the purpose of carrying out these special measures, the act provides for subsidies to the states, consisting of a uniform apportionment to each state plus an additional apportionment on the basis of the number of live births, etc. These funds must be matched by the states. There is also available for allotment, according to financial need for assistance in carrying out state plans, a special fund that does not have to be matched by the states.

Examination of the provisions of the Act which are concerned with maternal and child health, crippled children, and child welfare, reveals that their primary purpose is to extend and strengthen services for mothers and children in rural areas suffering from economic distress, and among groups in special need. These are the people who have been hitherto, for the most part, outside the reach of those health and welfare services that have been more generally available in the larger cities. In this connection it is significant to note that, since 1929, rural infant mortality rates have been higher than urban rates, a reversal of the condition existing in prior years.

Concretely, this philosophy is expressed as a cooperative relation to be developed between the Federal Government and the states; the states and the local government units; the official agencies within these areas of government concerned with health, education and public welfare; the official agencies and representatives of voluntary groups such as medical societies, public health nursing organizations, other health groups, and social welfare agencies.

This part of the program of the Social Security Act can be carried out only as it becomes, in each state, a state-wide program, clothed with specific provisions for making it effective in the lives of men, women, and children of the state, and supplemented by such other measures of social provisions for human needs as experience shows to be necessary and feasible. As a foundation for all these pro-

fessional undertakings, the understanding and intelligent support of professional and lay groups are essential.

As a member of the Advisory Committee to the Children's Bureau on Maternal and Child Health, I am in a position to say most emphatically that the Bureau does not wish to dictate to any state what its particular program shall be, or to take a hand in the selection of the personnel needed to carry out its program. It does entertain hopes, however, that the personnel will be selected according to high standards of training and fitness for the job.

Particular stress is being laid upon the vital importance of education in this program; education of the physician as well as of the layman. Too few of our group are evidencing interest. The pediatrician, above all citizens by reason of his training and experience, with his knowledge of the deleterious effects of adverse heredity, unfavorable environment, and improper food upon the growth and development of the child, should feel it his urgent duty not only to participate, but to seek leadership in this constructive program.

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CLIFFORD SWEET, M.D.\* (2490 Summit Street, Oakland). Doctor Stadtmuller has given us a comprehensive statement of the present and proposed program of the State Board of Health, concerning maternal and child health, to be carried out in rural districts with the assistance of the federal funds made available under the conditions of the Social Security Act.

I am certain that the mothers and children of rural California can be greatly benefited through the wise carrying out of this program. The medical profession can best serve not only the cause of public health, but its own interests, by whole-hearted cooperation in planning and carrying out this program. Doctor Stadtmuller spoke of winning the support of local communities as a necessary part of the program. I know, from many conversations with her, that she realizes that the most important group to be won are the local medical men. When I advise the fullest cooperation of medical men in carrying out this work, I am in no way an advocate of any form of state-controlled, socialized, or otherwise regimented medical profession. On the contrary, I am one who would cling to and fight for individual freedom and initiative, carried as far as may be, while having clearly in mind the rights, freedom, and best interests of other citizens.

I know there is no more generous body of men anywhere than the medical profession. However, we are human, and in our resentment against anything which gives even remote promise of curtailing our individual freedom we are apt to display an emotional attitude of anger and distrust rather than the more permanent and generous one to which the calmer, slower process of reason surely leads us.

Not only will the program of the California State Board of Public Health, as outlined by Doctor Stadtmuller, best serve the mothers and children of California, through and with the whole-hearted cooperation of the medical profession, but by this very cooperation, both in planning and carrying it out, we can most strongly exert influence; aye, even define and limit its entire public relationship as well as its effects upon the practice of medicine. On the other hand, our hostility can only make the program less effective in its most desirable objective, namely, improvement in maternal and child health, while at the same time it will, in several and devious ways, increase the speed with which bureaucratic medicine will compete with or dominate us.

We cannot defeat or halt such measures as this, because public opinion is strongly for them and we are a very small minority, not especially astute in the field of practical politics. Public opinion generally remains entrenched behind measures that are fortified with available funds for the payment of salaries. There is no marked human tend-

\* Note.—Doctor Sweet is a member of the Professional Advisory Committee provided to cooperate with the State Board of Health in carrying out the provisions of the Social Security Act, and is state chairman for northern California of the American Academy of Pediatrics.

ency to murder or otherwise injure "Santa Claus." Those of us who teach pediatrics, either in organized teaching centers or through professional journals and meetings, must and will continue our best efforts to give freely all the knowledge and skill we possess. Young physicians not yet established in private practice may well find positions offered by the Government so attractive that, gradually, enough will remain in the service to make it a permanent part of American life. Once established, popular demand will clamor for an ever-increasing reliance upon it for full medical care.

The Social Security Act proposes at the present time to make the greatest possible use of the private practitioners already established in their respective communities, and is offering postgraduate instruction in maternal and child welfare in order to raise the grade of care available within the private practice of medicine. There can be no more certain guarantee that any service will remain free from outside influence than a satisfactory and increasing degree of excellence within itself. It would seem that members of the medical profession should welcome this opportunity to improve their training, especially since it can be had without cost or great loss of time. Prenatal and child-health conferences should stimulate the desire for this type of service in the community, with a consequent increase in the practice of those physicians who are trained to offer the best service in these fields.

A certain number of full-time physicians are necessary to carry out this work; but I think the introductory stage of the work and the postgraduate teaching can best be done by well-known, experienced practitioners. These older, better known physicians will, through experience, know how to manage people better than recent graduates and, being themselves private practitioners of medicine, will have an entrée into the councils of local medical societies.

Certain strategic points should be chosen at which an Institute on Child and Maternal Welfare should be held, lasting perhaps the greater part of the week. During this time one or several of the experienced men of whom I have spoken should live in the community, giving clinics open to all members of the local profession, appearing before the local medical society and talking to lay groups, such as Parent-Teacher meetings and service clubs, and being available for consultation, without cost to the patient, upon call by any physician in the community.

For service such as this by physicians from the larger centers the Government is offering a compensation of \$25 per day and expenses. While this amount of compensation will bring a considerable measure of relief to those of the profession who have formerly done a great deal of this kind of work at their own expense, it is, I think, insufficient. I have talked with many of the best-established pediatricians in California, and all have freely expressed their willingness to make certain sacrifices in order to carry this work out. The compensation should, I think, be made \$50 per day and expenses. If this were done, men of experience and ability could afford to spend much more time in the work. The extra money spent for services such as this would be spent much more profitably than in securing a longer term of service from less experienced physicians. I am certain that the net results of a few days in a community by an experienced, astute teacher of pediatrics might well be greater and more lasting than a month's effort on the part of a young, inexperienced, full-time Government employee, with less, or at least no greater, expense to the Government. So while physicians will go out from the medical centers, even at a sacrifice, to carry on this work, I want to go on record in favor of more adequate compensation in order that the teaching and leadership may be the best obtainable.

Incidentally, I should like to call Doctor Stadtmuller's attention to the fact that temporary (cement) fillings have no place in children's dentistry except that they indeed be for temporary use only.

## PLASTIC OPERATION ON THE PELVIS OF A SOLITARY KIDNEY\*

By JOHN A. DOUGHERTY, M.D.  
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DISCUSSION by Lionel P. Player, M.D., San Francisco;  
Albert M. Meads, M.D., Oakland; George W. Hartman,  
M.D., San Francisco.

IN 1891, Kuster<sup>1</sup> recorded the first successful plastic surgical operation on the renal pelvis. The term "successful" is used with reservation, since before the days of pyelography the measure of surgical result lacked the present-day precision. One year later, Christian Fenger<sup>2</sup> published an account of a plastic operative procedure for the relief of hydronephrosis due to valve formation and stricture of the ureter. Following Fenger's article in the *Journal of the American Medical Association*, the renal pelvis became the recipient of a surgical attention more enthusiastic than discriminating. As an inevitable result, the procedure fell into disfavor. In 1927, Quinby<sup>3</sup> reported thirteen cases of this type, and two years later, in a symposium at the annual meeting of the American Medical Association in which von Lichtenberg,<sup>4</sup> Walters,<sup>5</sup> and Quinby<sup>6</sup> participated, fifty-seven cases were discussed. The influence of this meeting did much to put the operation on a respectable basis.

### IS SURGICAL PROCEDURE INDICATED?

The idea of surgery of the renal pelvis has not met with unanimous acceptance. Some urologists feel, with Moore,<sup>7</sup> that, since this operation has been successful in so few cases, perhaps "conservatism would find a truer expression in that procedure which offers the best prospect of permanent relief." Keyes<sup>8</sup> states that in kidneys which are materially infected, plastic operations on the pelvis will break down and the resultant scar tissue will cause kinking and obstruction. The accuracy of Keyes' observation will probably hinge upon his interpretation of the phrase "materially infected," since both Quinby and Walters report successful results on infected cases, and in the case about to be reported the urine was purulent. Cabot<sup>9</sup> expresses an "abiding skepticism" in regard to ultimate results. He feels that these repairs break down later as the results of infection. Walters<sup>10</sup> believes that infection does not have much influence with the final result, and suggests that the chief factor is the complete removal of obstruction.

### FOUR METHODS OF SURGICAL PROCEDURE

In the surgical attack on ureteropelvic obstructions four methods have been most often used:

1. Reimplantation of the excised ureter into the pelvis at its most dependent part.
2. Longitudinal incision with transverse closure.
3. The "Y" incision with the "V" closure.
4. Some type of lateral anastomosis, either with the pelvis or another portion of the ureter.

\* Read before the Urology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2-6, 1937.



Fig. 1.—Preoperative pyelogram.



Fig. 2.—Six months' postoperative pyelogram.



Fig. 3.—Eighteen months' postoperative pyelogram.

Combined with this have been, when indicated, resection of the renal pelvis, nephropexy, stripping of the capsule or renal sympathectomy. Von Lichtenberg<sup>11</sup> is opposed to resection of the pelvis because he believes that it is unnecessary, and that it may interfere with the mechanical functions of the pelvis. Walters,<sup>12</sup> on the other hand, resects the pelvis with apparent impunity. Nephrostomy is definitely indicated, and in infected cases splinting the ureter with a ureteral catheter is advised.

#### INDICATIONS FOR OPERATION

The indications for this operation are:

1. Bilateral hydronephrosis.
2. Unilateral hydronephrosis in a kidney which seems to have sufficient parenchyma to justify the effort at its redemption.
3. Hydronephrosis in a solitary kidney.

In the congenital solitary kidney there are three anomalies which are commonly confused. Pilcher<sup>13</sup> defines these as:

1. The hypoplastic kidney which, except for its small size, may be normal. The function may be normal and the ureter is patent, though on account of its size the kidney is incapable of independently supporting life.
2. Renal aplasia, in which the kidney is represented by a small mass of fibrous tissue. The ureter is present, but does not connect with this mass, which may contain glomeruli and tubules.
3. Congenital absence of the kidney, in which there is a complete absence of the kidney, ureter, and one-half of the trigone. The case about to be reported seems best to fit in the aplastic group.

#### REPORT OF CASE

The patient is white, female, aged two and one-half years. Both parents are healthy, and the one other child, a younger brother, is apparently normal. At the age of twenty months the patient suffered an apparent renal infection with fever, pyuria, and albuminuria. She was treated with bed rest and urinary antiseptics, and recovered, although from that time on the urine showed pus

cells whenever examined. Nine months later an upper respiratory infection occurred with fever and a two days' anuria, which was relieved after a normal saline hyperdermoclysis. At this time a mass was felt under the skin, in the upper left abdomen.

On account of the pyuria the child was cystoscoped at the age of twenty-seven months. Purulent urine was secured from the left kidney. The right ureter was catheterized, but no urine was obtained. Indigo-carmin administered intravenously appeared faintly in the urine in fifteen minutes, and the blood-urea nitrogen was 30.3 milligrams per 100 cubic centimeters of blood. No pyelogram was taken at this time. The examination was followed by a twenty-four-hour anuria. One month later pyclography was done, which showed an absence of right kidney and a left infected hydronephrosis, with an obstruction at the ureteropelvic junction. An operation, designed to relieve the above obstruction, was proposed to the parents who, after a consultation with Doctor Hinman, accepted.

At operation the kidney was exposed and the upper ureter freed. The obstruction was found, as shown in the pyelogram. Lying over the ureter at this point was a band of fibrous tissue. This was divided. A "Y" incision in the ureter was made with the leg of the Y, extending down through the strictured area. This incision was closed like a V, a ureteral catheter was passed down the ureter, and a nephrostomy tube extended through the cortex. The ureteral catheter was removed on the fourth day, and on the tenth day the nephrostomy tube came out. Attempts to replace it were not successful. No ill effects followed its removal. The wound healed immediately and the patient voided normally. At a cystoscopic check-up six months later, the urine showed a few clumps of pus cells and *B. coli* on culture. A blood-urea nitrogen of 17 milligrams per 100 cubic centimeters of blood and a normal excretion time of four minutes for indigo-carmin were noted at this examination. At ten and fifteen months later, the urine was negative on smears for organisms and showed no pus cells upon being centrifuged. At eighteen months postoperative, a cystoscopic check-up was done. The urine showed a normal excretion time for indigo-carmin, clumps of pus cells, and cultured *B. coli*. After one week's administration of mandelic acid, the urine again became normal and has remained so until the present time.

#### COMMENT

1. The history of plastic operations on the renal pelvis indicates that it reaches its deserved usefulness only if used with discrimination. The indications are suggested.

2. Ureteropelvic obstructions, causing hydronephrosis and renal impairment in a solitary kidney, are one of the prime indications for this form of conservative surgery.

3. The history, operative findings and postoperative course of such a case are herein related.

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#### DISCUSSION

LIONEL P. PLAYER, M. D. (384 Post Street, San Francisco).—The inevitable result of obstruction with superimposed infection, gradually increasing pelvic dilatation and back pressure, is death of the kidney, unless some method of combating the condition is instituted.

The technique employed in surgery of the renal pelvis and ureter may be any one, or a combination of those enumerated by the essayist; and will be governed by the type of pelvic or ureteral anomaly or distortion presented. The main object is to establish dependent drainage.

It is problematical whether the newer methods of diet and drugs will sterilize the urine where drainage is inadequate; but, granting that they will accomplish that purpose, back pressure due to obstruction and increasing pelvic dilatation will eventually inhibit renal function, and favor recurrent infection.

Dilatation of ureteral or ureteropelvic strictures in indicated cases is sometimes effectual and should be persisted in, if not attended by too great reaction. Following plastic surgery on the pelvis or upper ureter, Hinman's nephrostomy tube placed in the pelvis and upper part of the ureter is the safest method for temporary irrigation and drainage. Attention to extrinsic factors causing obstructions, where practical, must be eliminated. By the term "practical" is meant that full consideration must be given to the blood and nerve supply of the upper ureter and pelvis, in order to conserve the viability of these structures.

The choice of suture material is important. In my cases, plain catgut No. 00 has given the best results.

ALBERT M. MEADS, M. D. (251 Moss Avenue, Oakland). Plastic operations upon the renal pelvis have been the subject of discussion for many years, but until recently there has been no general acceptance of such procedures because of the poor end-results. However, the pioneer work of Quinby, Foley, Cabot, and others, has now established fairly definite indications that justify plastic operations and technical procedures that promise satisfactory results in a reasonable number of cases.

Personally, I feel that when a kidney is normal on one side, a plastic operation on the other should be attempted only after carefully considering the ability of the patient, physically and financially, to undergo a possible secondary nephrectomy if the plastic operation fails. Failure is primarily due to previous infection which, unfortunately, usually exists. Routine drainage of the kidney by nephrostomy, splinting of the ureter with an indwelling ureteral catheter, and carrying out a surgical technique that will insure drainage of the renal pelvis at its most dependent part are fundamental.

Doctor Dougherty's excellent result is due to the fact that he carried out these fundamental principles.

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GEORGE W. HARTMAN, M. D. (999 Sutter Street, San Francisco).—There is a strong feeling among urologic authors that plastic operations on the kidney are of little value when a good opposite kidney is present. A resected kidney "lays down" in the presence of an active mate. That it never reaches its full capacity again by compensatory hypertrophy, or that the opposite kidney does not hypertrophy, has been determined by Plaggenmeyer and Cummings. It may lose function or atrophy, probably both.

On the other hand, surgery on the solitary kidney is becoming more frequent, as surgical understanding and technique are improved. This is logically most common in calculus, where indications are most imperative and dramatic, notably with impaction of a stone or fragments of one, which make its presence felt with violence.

Perhaps the height of success in plastic surgery upon a solitary kidney was reached by Judd, who resected (1925) the upper third of a single kidney with infected upper calices for stone, in a woman who underwent a successful childbirth in the following year. Thomas N. Hepburn of Hartford, Connecticut, in the same year, removed the upper half of a solitary (remaining) kidney for stone and infection. The patient was living and well four years later.

Operations of less urgent need, that is, for hydronephrosis and stricture, have been of slower development.

Congenital absence of a kidney is rare. It has been reported in about one in sixteen hundred autopsies by Campbell. Doctor Dougherty's patient might well have been of the anomalous type, confused with hypoplastic kidney, renal aplasia or congenital absence, which he cites, or there might have been an autonephrectomy following the child's previous infection. The case was somewhat urgent and unpromising. The operation was skillfully and expeditiously done.

Nephrostomy drainage is an essential adjunct; fortunately the tube stayed in long enough. The indwelling ureteral catheter, frequently referred to as a "splint," is a valuable factor in preventing hydrostatic pressure against a suture line. It may well be classed as a drain. I would like to stress here the value of *failure* of the intravenous pyelogram, if viewed as a functional test. If there is inadequate shadow, it indicates a nonfunctioning or a poorly functioning kidney. When the technique for serial, progressive films for pyelograms has been developed, the time of appearance of the dye will become a valued observation.

In view of the limitations of mechanical treatment in patients so young, mandelic acid has been of much help to this patient. It can be applied with much less concern, in children, than sulfanilamid, for instance. Doctors Goldstein and Abeshouse have recently concluded that man can survive with one-fourth of his total renal substance—that is, one-half of one kidney. Doctor Dougherty's patient has a very good outlook.

## PHYSICAL DEFECTS IN THE MENTALLY-RETARDED SCHOOL CHILDREN\*

By MARIAN GOLDWASSER, M.D.  
Los Angeles

DISCUSSION by Ellen S. Stadtmüller, M.D., San Francisco; Sven Lokrantz, M.D., Los Angeles; A. J. Rosanoff, M.D., Los Angeles.

THE problem of physical defects in the mentally-retarded school children has been studied in this country and abroad. The most extensive studies have been made in England by such authorities as Tredgold, English, and Burt. They state that out of 150,000 children examined, 0.5 per cent to 1 per cent were mentally defective. The figure in the United States, according to statistics, is 2 per cent, and in Los Angeles about 1.9 per cent. It is of interest to note that there are more mentally-deficient boys than girls, the proportion given being three to two.

There are more mentally-deficient children in the large cities than in the smaller communities.

Mentally-defectives are just as prevalent among the upper as the lower classes of society.

### ETIOLOGIC FACTORS

The factors responsible for the mental deficiency may be traced to the prenatal and postnatal life of the child. They may be of a hereditary, congenital or acquired origin.

The origin is *hereditary* in cases of deficiency in the male or female germ-cells of the parents—the carriers of true heredity.

The reasons for the deficiency are not always clear. Some authorities believe that imperfect contraceptive methods, which only damage, but do not kill the spermatozoa and permit them to penetrate into the uterus, may be responsible for a defective offspring. The advanced age of the parents, particularly of the mother, is considered to be an important factor in the deficient structure of the germ-cells.

The origin is considered to be *congenital*, if mental deficiency is caused by illnesses, injuries, or poisons acting on the fetus in utero, like congenital syphilis in the mother, lead-poisoning, alcohol, or an unsuccessful abortion.

The origin may be considered of an *acquired* nature when mental deficiency results from birth injuries, or injuries and illness of the brain received after birth. The higher incidence of mental deficiency in boys is due to the fact, stated by many, that the male fetuses are more vulnerable than the female—both in a general way and with respect to the organs of intellectual function.

Are any congenital or acquired physical disorders, such as glandular disturbances, congenital syphilis, or others responsible for mental deficiency?

Glandular disorders are frequently found in mentally-retarded children, but they may not always be responsible for the retardation.

In a study of 317 mentally-defective children made recently by Dr. M. Gordon and Dr. L. Ruskin, of the Department of Pediatrics in Long Island College, it has been found that 155 had endocrine symptoms and 162 did not have any. In another study, made by the same authors on 958 children with mental defects, 529 had glandular defects and 429 were free of them.

Opinions differ as to the frequency of the occurrence of glandular defects in the mentally-deficient, and statistics vary from 2.4 per cent to 6.2 per cent.

It may be of interest to note that, in the above-mentioned studies, the nonglandular cases had a lower I.Q. than those which showed a definite disturbance of the endocrine glands. There are three probabilities, according to Gordon and Ruskin, in the relationship between mental deficiency and the disturbance of the glands:

1. Either the mental status is due to the endocrine disorder,
2. Or the mental status is the result of an unrelated, nonendocrine cause,
3. Or the mental retardation and the endocrine disturbance are both due to a third common, genetic cause—congenital, or acquired.

Is congenital syphilis a frequent cause of mental deficiency?

Authors disagree upon this also. Professor Gött, of the University of Bonn, Germany, states that many feeble-minded children show evidence of congenital syphilis, while others have a suggestive history, and he states further that, although general statistics vary, he found that in a large percentage the Wassermann reaction is positive.

Kropelin of Germany assumes a syphilitic background in 33 per cent of his cases. He states, as an example, the frequency of encephalitis in the newborn, resulting from syphilis in the mother during pregnancy.

The English and American authors, on the other hand, believe that no unduly large proportion of mental defectives are subject to congenital syphilis, or show a positive Wassermann reaction, and that mental deficiency constitutes no proof that the latter is due to the former.

Diseased tonsils, deafness, and blindness tend to mask the intelligence and reduce its effectiveness, but do not cause mental deficiency. They may retard the child's ultimate development by an equivalent of six to twelve months' progress, but are easily remedied.

Epilepsy, on the other hand, gradually leads to the deterioration of the brain and to a defective intellect.

Hereditary causes are responsible for a much larger portion of mental defects than are the congenital or acquired.

The Committee on Mental Deficiency in London, England, in a report to the British Medical Association in 1932, states that 70 per cent of all mental defects are inherited, while 30 per cent are acquired, and that in a large majority heredity furnishes the *material*, and environment shapes it and uses it. This statement does not imply that the majority of mentally-deficient children are born of mentally-deficient parents.

\* A school physician's viewpoint.

Read before the Section of Education of Exceptional Children of the Los Angeles Board of Education on May 11, 1937.

In a study made among the London school children, it was found that barely 6 per cent of the mentally-defective children had defective parents, but 38 per cent had at least one parent definitely dull, and 12 per cent had one parent who suffered from epilepsy.

A seemingly sporadic case in a family is not rare, but a thorough study may trace it to a neurotic or unstable relative of tainted stock.

In other words, mental deficiency is usually inherited as a recessive characteristic, but in certain cases may act as dominant.

The inheritance takes the form of a neurotic diathesis, or an innate predisposition to a neurotic weakness. No clean application of the Mendelian law to the inheritance of mental defects has been made. But, as a rule, feeble-minded parents are usually apt to produce feeble-minded children, and intelligent parents are generally apt to bring intelligent offspring into the world. This rule has many exceptions. If there is one feeble-minded child in the family, it is quite possible that there may be others.

#### PHYSICAL STIGMATA

Many mentally-defective children have quite a normal physical appearance and cannot, by casual inspection, be singled out among other children as abnormal.

The majority, however, show more or less evident stigmata of degeneration. Asymmetry or unusually large or small size of the head; deformities of the external ear, or its complete absence; an epicanthic fold from below the eyebrows continuing around the internal angle of the eyes; differently-colored irises, irregular pupils, a squint; a flattened, depressed nose, large, fleshy nostrils; coarse, prominent lips, a heavy, flabby, open mouth, with irregular, protruding teeth are the prominent features in extreme cases. Webbed fingers and deformed toes are not rare. The skin is coarse and hairy, or abnormally hairless. The stature is usually small with excessive adiposity, gigantism may be present in other cases. The posture is poor, the gait is clumsy and ungraceful, the speech may be defective; many are nervous, jerky and subject to choreiform movements. Few normal individuals are without at least one of these stigmata, but the coexistence of several in the same individual indicates abnormality.

Anatomical studies of the brain in the mentally-retarded show an imperfect development or an irregular arrangement of the brain cells. Very often there is found a deficiency in the numbers of the cells and a poorly-developed, capillary system. These findings may be responsible for the inefficient function of the brain.

#### TYPES

There are several distinct types among the mentally-retarded children. Of these the Mongoloid has the most conspicuous appearance and facial characteristics responsible for the name. According to Crookshank, this type is not found among negroes and is rare among Jews. The true ethiology of these cases is unknown. They are frequently born to mothers past forty years of age, and re-

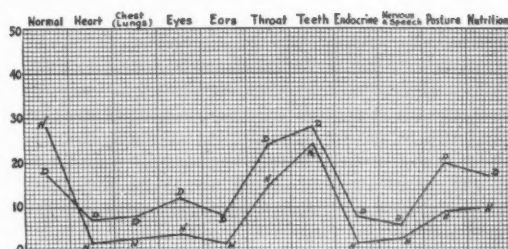


Chart 1.—A comparative study of physical defects in children in four development schools (Curve D) and in four normal schools (Curve N) in Los Angeles.

semble other Mongoloids much more than members of their own family.

Another type frequently found among the mentally-defective children is the cretin—short stocky, dull—the subject of a disturbance in the function of the thyroid gland and the most amenable to medical treatment.

The third, easily-distinguishable type is the microcephalic, with his small head, fine features, spastic extremities, nervousness and squint.

Many children do not present clear-cut types, but attract attention by the lifeless indifference of their facial expression.

#### OTHER FACTORS

The mentally-defective children have a prevalence of physical defects and a lower vitality when compared with the normal.

Professor Eugene Schlezinger, of Zurich, Switzerland, finds, as the result of a study on 712 children made in 1936, that the majority of bright children have a very good physique, while the majority of dull children have a poor physique, but not always. Sometimes an antagonistic relationship exists, as if nature tried to produce equality by giving the mentally-weak a strong body, and vice versa.

Professor Otto Schneider, of Berlin, Germany, in an article in *Gesundheit und Erziehung*, of January, 1934, states that in a comparative study made on children in normal and development schools, he found defects in 63.1 per cent of boys in the development schools against 42.4 per cent of boys in the normal schools, and in 42.8 per cent of girls in the development schools against 26.1 per cent in the normal.

Vitality and resistance to diseases is also much lower in the mentally-retarded. Their mortality is from three to six times greater. Congenital heart disease and tuberculosis are the most frequent causes of early death.

According to Maltzberg, 25 per cent of mentally-defective children die between the ages of four and six; 50 per cent die between the ages of thirteen to seventeen, and 75 per cent die before the age of thirty.

The reason for such high mortality, according to Walter Fernold, is that the feeble-minded are also feeble-bodied. A study made in his school shows that four out of five children have defective teeth and tonsils; one out of four has defective vision; one in six has a defective heart and circulation, and one in seven has neurological defects.

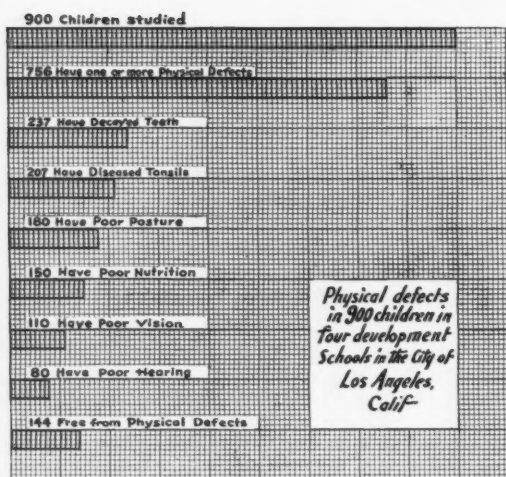


Chart 2.—Physical defects in 900 children in four development schools in the city of Los Angeles.

Doctor Lapage found, in his study, that 90.5 per cent of the mentally-retarded children had physical defects of some kind, and that 25 per cent had triple defects and a high mortality.

One of the most prevalent defects is poor eyesight, as caused by a squint, myopia, hyperopia and astigmatism. Defects in hearing are also numerous and frequently remain unrecognized for a long time, particularly in cases where deafness is limited to one end of the tonal scale.

Many children have congenital heart disease, with poor circulation and a tendency to a catarrh of the respiratory tract. They develop diseased tonsils, large adenoids, coryza bronchitis and a great predisposition toward tuberculosis.

Anomalies of the palate are frequent. A high saddle or V-shaped palate is found in from 61.7 per cent to 80 per cent of the mentally-dull children.

A good set of teeth is rare. The teeth usually are late to appear, are malformed, unhealthy, and decay early. The chewing of the food is unsatisfactory, and poor digestion, poor assimilation and malnutrition follow.

The function of the glands of internal secretion is disturbed in many cases, with the consequence of faulty metabolism.

#### PROPHYLAXIS

Can anything be done to prevent mental deficiency in children?

So far very few measures are known to be useful, and these are applied in this country and abroad. Sterilization of the known mentally-deficient will prevent this group from bringing forth children. But, according to the Burt certifiable defective form, these are but the fringe of a much larger portion of the population which includes the dull, the backward, the unemployable, the habitually delinquent—all of whom are subnormal in one direction or in another. It is debatable, as yet, whether the sterilization of such a large group is practical.

Segregation of smaller groups may prove successful, as substantiated by a very interesting

incident described by David Starr Jordan in the *Training School Bulletin* of October, 1915.

In 1897, while visiting the Valley of Aosta, he saw hundreds of cretins—the severe military selection of this region having removed the healthy males, left the goitrous, and cretins to carry on, and they multiplied greatly. In 1910, when he visited the valley again, he found that the cretins had disappeared. By law they had been segregated and sent to an asylum, thereby being prevented from marrying.

Congenital syphilis as a factor of mental deficiency may be prevented by early and intensive treatment of the mother. Proper prenatal care and proper obstetrical procedures may prevent some deformities and birth injuries. Proper care of the infant may diminish the incidence of infectious diseases and accidents, so often responsible for acquired mental deficiency.

Proper birth-control method will, to a great extent, control the propagation of the unfit. Prevention is always the ideal procedure in medicine, but when it fails, the second best is cure.

#### PROGNOSIS AND TREATMENT

The essence of mental deficiency is that it is incurable.

We can no longer hope that the removal of the tonsils, the repair of the teeth, the provision of glasses and gland therapy will do much to lessen the number that is mentally backward. However, as a result of care, better tools will be used by those whose mental capacity is limited, and who need this help because of their affliction. There can be no doubt that the mentally-defective, just as the normal child, possesses potentialities and is capable of development, though at a slower rate of speed. For a long time it may be impossible to detect any signs of progress; then, suddenly, it may appear and develop.

The correction of physical defects in mentally-deficient children should be considered, first, as an essential prelude, and then as an accompaniment to the training of the mind. Drugs have no direct influence on the improvement of the mind in the majority of cases, with the exception of thyroid extract, known to be definitely helpful in cases of cretinism. The other glandular preparations so far do not show any beneficial effects on mentality. Antisyphilitic treatment will prevent the progress of the disease, but will not correct the damage existing. Operations are absolutely unjustified, as are also manipulations of the chiropractors or osteopaths.

The removal of the physical defects, placement of the children in open-air rooms, milk, cod-liver oil, proper physical training and a large amount of rest will tend to produce a healthier body and thereby may also improve, if not the health, then perhaps the function of the mind.

This program is being tried at the present time in Germany with beneficial results. Doctor Schneider, in his preliminary report, states that the children who were treated according to the above-mentioned program were found, upon reexamination, to be taller, to have gained weight, to have fewer infectious diseases, and a better attendance in school.

With these remarks embracing the etiology, clinical findings and treatment of mentally-deficient children, I will conclude the review of what is being thought and done for these children by the medical profession in this country and abroad.

#### FOUR LOS ANGELES DEVELOPMENT SCHOOLS

Within the past two months I have made a study of the health situation in nine hundred children in four development schools in Los Angeles.

Each one of these schools is representative of a more or less definite group, or combination of groups, of the Los Angeles population, and the children in all four of these schools are representative of any group which includes negroes, Mongolians, Mexicans, and Caucasians; the latter including Italians, French, Slavs, Jews and native sons and daughters of Nordic descent. These nine hundred children represent about 25 per cent of the development school population of Los Angeles. These four schools I have compared to four schools for the normal children in their respective neighborhoods. The four elementary schools have about 2700 children. Five of these schools have been under my supervision for several years, and I am well acquainted with the children who attend them. The information about the other three schools I received from health cards and from most valuable additional comments graciously given to me by their principals.

#### DATA CONCERNING NINE HUNDRED CHILDREN

In reviewing the material which I have collected for my study, I came across many rather interesting facts. I also found that there is a larger percentage of boys in the development schools, namely that there were 528 boys against only 372 girls among the nine hundred children studied, a proportion of four to three against three to two reported in the literature. Whether this happened because the male fetuses were more susceptible to injury and actually were injured, would be difficult to prove. For lack of time I did not make a thorough study of the heredity in each child in the development group, but one may infer that the hereditary factor of mental retardation was frequently present, since I found that 169 families, or 20 per cent, have more than one child in a development school. Many families have three children. Several have four and one family has five members in the same development school. One of these children is a niece to the other four. Many children have a father or mother, or both parents, who have attended development schools, sometimes the same school where their children are at present. Children from all strata of society can be found in these schools—Americans and foreigners of all nationalities. Mexicans prevail, no doubt for the simple reason that Los Angeles ranks second in the world in regard to its Mexican population, Mexico City being first.

All races and all school ages are represented.

Most of the children come from poor families, but many come from the middle class and a few from the rich. The small number from the well-to-do families is due to the fact that many of the parents who can pay prefer private training.

In September, 1936, 2,936 children were enrolled in the development schools against 156,992 in the elementary schools in Los Angeles, which makes the percentage of mentally-deficient children in the public schools equal to 1.9 per cent against 2 per cent for the United States.

The average daily attendance of the children in the development schools is lower than in the elementary schools. The normal children have a better attendance partly, perhaps, because they are more interested in their work, but mainly because the majority enjoy better health and are less susceptible to minor illness, so prevalent among the mentally-retarded. The greater susceptibility of the mentally-retarded is due to a poorer physical condition, as it may be seen from charts which I have made following my comparative study.

The curves on the chart of the final comparative study show that a higher percentage of children in the development schools suffer from each one of the eleven defects most frequently found during the physical examination. The same chart also shows that fewer children in the development schools are entirely free from defects. The differences, though, are not as high as one might expect and, I believe, for the following two reasons: First, because the curve of the physical defects in the normal children is too high, the number of decayed teeth and diseased tonsils is appalling. The second reason lies in the fact that the retarded children, because of their helplessness and the inadequacy of their parents, receive more medical care through the schools. They have comparatively more nurse service, they are usually transported to the clinics, or have the clinics brought to them in the form of the "healthmobile."

#### ASSOCIATED PHYSICAL DEFECTS

It is encouraging to find that the physical condition of the children in our development schools is not any worse, although it is far from being adequate. I found, among the nine hundred children studied, that 756 have physical defects, 234 have decayed teeth, 207 have diseased tonsils, 180 have poor posture, 150 have poor nutrition, 110 have poor vision, 80 are known to have poor hearing—the actual number of those who are deaf is probably much higher.

Each one of these defects will handicap a normal or even a bright child, and certainly is no asset to the mentally-deficient. There can be no doubt that the mentally-deficient, if left without training, will grow up to become a burden to society. To prevent such an occurrence, development schools, where education is offered to these children, have been organized. But how much can the child with limited mental capacity profit from this offer when he also happens to be partially blind or deaf; has a nasal obstruction with difficulty in breathing; has weak lungs, a bad heart and poor circulation; is malnourished, nervous; has decayed teeth with digestive disturbances, poor assimilation and a poor metabolism?

In order to help him receive whatever knowledge and training his mentality is capable of absorbing, we must endeavor to correct his physical defects and do it quickly.

## A SUGGESTED HEALTH PROGRAM

I wish to suggest, for this purpose, the following health program which should be possible to introduce in each school; a program which should provide, in addition to health education, health practices in school:

A special person, a matron, should be assigned to every development school to take care of the physical needs of the children. All who are nervous, all who have serious visual defects, all who are borderline tuberculosis cases or are tuberculosis contacts, and all who have heart defects should have a rest period daily, preferably in the open air.

All those who suffer from various forms of malnutrition, and do not have sufficient food at home, should receive lunch, milk, and cod-liver oil in school, also breakfast when possible.

In charge of this work a nutrition teacher is most desirable.

Corrective physical training should be given to all the children with postural defects and poor coordination. The exercises should be made interesting, not tiring, and given systematically. This type of physical education will tend to develop the capacity of the chest and thus improve the condition of the lungs and heart, and also train the muscles to better performance of manual work.

## THREE CARDINAL ELEMENTS IN THE HEALTH PROGRAM

Nutrition, rest and corrective physical education are the three cardinal points of the health program which should be, and can be carried out in school. Such a program we have in one of these schools under the supervision of the matron. The children rest an hour daily and receive milk, lunch and cod-liver oil. Since September, 1936, twenty-eight children attended the rest class, twenty-four attend it at present.

The maximum gain in weight was 13½ pounds, the average gain was 5.2 pounds for those who attended the class for five months, and 1.7 per cent for those who attended the class for two months.

The physical condition and achievement in school improved in the majority of cases.

A more extensive program is carried on in another of these schools, under the supervision of one of the teachers and under the direction of the principal.

Some fifty-five children were assigned through the year, and thirteen of these children receive in school, breakfast, nutrition, and lunch, while nineteen receive nutrition, and twenty-four their breakfast. The maximum gain was twenty-five pounds, the average was 7.6 for those who receive breakfast, and 6.05 for the others.

The school physician should be given sufficient time for a thorough study of each child, and the school nurse should have time enough to follow up the cases.

The school should be able to offer to the children transportation to the clinics when the parents cannot take them. A "healthmobile" on the school premises is most desirable.

It is true that under this program not all defects can be corrected; it is true that even the correction

cannot alter the mind of the child, but it is also true that the mentally-deficient child, when relieved from his physical handicap, can always find better application for his limited ability and once in a while may prove that he is not so dumb.

Mental deficiency cannot be cured, but can be made less disabling.

In conclusion I shall paraphrase the quotation from Dickins which I have used as my theme and say:

"Try not to associate *mental* defects with bodily, my good friends, except for solid reasons, but when physical defects are found always correct them quickly."

649 South Olive Street.

## DISCUSSION

ELLEN S. STADTMULLER, M.D. (Chief, Bureau of Child Hygiene, California Department of Public Health, San Francisco).—In a series of lectures delivered by Dr. L. Emmett Holt some years ago, in which the nutritional status of children was discussed, he pointed out that superior intellectual attainments and physical vigor usually go hand-in-hand. It is interesting to note that Doctor Goldwasser emphasizes the reverse picture in connection with mental defects; that is, that the feeble-minded are usually also feeble-bodied, and are more susceptible to intercurrent disease. This may, of course, be due to the lessened vital resistance of the whole organism, but it may also be due to a lack of intelligent understanding of health rules and, where feeble-mindedness is a family problem, to a lack of intelligent care.

Although the following sentence is included, "This statement does not imply that the majority of mentally deficient children are born of mentally deficient parents," Doctor Goldwasser produces figures to show that, in many instances, one parent of these children may be mentally below par. She also shows the hereditary strain by figures which she cites of multiple instances of mental deficiency found in one family occurring in the group of children under consideration. The high incidence of glandular disorders found among this group is in line with the modern conception that internal secretions are a determining factor in the mental ability and competence of the organism.

In addition, 84 per cent of the 900 children reviewed show physical defects. These figures may be contrasted with those available for young California children in rural areas. According to examinations recently conducted by the staff of the Bureau of Child Hygiene, State Department of Public Health, 65.7 per cent of young children in public schools show physical defects. Among American migratory children recently studied in the San Joaquin Valley, 91.3 per cent of a young group, consisting of 197 children, showed defects. A large group of children surveyed in Pennsylvania during the year 1932 showed from 15 to 17 per cent suffering from malnutrition, even in counties where agriculture was the chief industry. A recent survey of 14,591 children given audiometer tests in the mountain counties of California showed 1,468, or slightly more than 10 per cent, with diminished hearing. Similarly, for the other physical defects cited, such as decayed teeth, diseased tonsils, and poor posture, the percentage in Doctor Goldwasser's group does not appear to be higher than those in any group of school children studied.

It is true that these children, being much less able to understand their own needs and much more difficult to educate, are in need of special protection; but, if good health supervision and corrective work were available for all children in the schools, good care for the mentally defective would be available as well.

There is this special point to be stressed in considering better physical conditions for such a group of children: By the investment of present sums in bettering their physical condition, we undoubtedly assist them to receive all the training which their mental capacity allows them to absorb, and by so doing we prevent the greater expense of dependency in future life.

SVEN LOKRANTZ, M.D. (858 Manning Avenue, Los Angeles).—Whatever the mental condition may be, the physical welfare of the child must be considered. Subnormal children who have physical defects should have these defects corrected, if possible, and thereby we may reduce the mental retardation.

I feel that the health program outlined above for our mentally handicapped boys and girls is very worth while and of greatest importance in our educational program for these mental defectives. Much is still to be learned about the correlation between health and mental fitness. The research done by Doctor Goldwasser is a fine step toward the promotion of health among our mentally retarded. It constitutes a challenge to physicians and educators everywhere to aid in making these health facilities obtainable to these subnormal children that they may enjoy greater comfort, be less a burden to society, and lessen the physical retardation superimposed on a dull mind.

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A. J. ROSANOFF, M.D. (1908 Wilshire Boulevard, Los Angeles).—Doctor Goldwasser's investigation has revealed that 1.9 per cent of the children enrolled in the elementary public schools of the city of Los Angeles are in the development schools. It may be judged that the true incidence of mental deficiency among children of elementary-school ages is higher than this figure would indicate; for not all mentally deficient children are sent to the development schools. The lowest-grade cases, especially if complicated with crippling palsies, epilepsy, etc., are necessarily excluded from the schools; many of the higher-grade cases are kept in the regular classes.

The investigation has revealed, further, that the children in the development schools are further handicapped, as a group, by an abnormally high incidence of physical defects, such as infected teeth and tonsils, poor general nutrition, impaired vision and hearing, and the like.

Such findings are not new either to physicians or to educators; but it is probably worth while to bring them to attention as problems existing today in our own community and calling for some such preventive and remedial measures as those suggested in the paper.

## SKIN AND CHEMICAL TESTS FOR PREGNANCY\*

By ROBERT D. DUNN, M.D.  
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AND  
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DISCUSSION by Daniel G. Morton, M.D., San Francisco.

OF the recent tests for pregnancy, the chemical method of Visscher and Bowman,<sup>1</sup> introduced in 1934, and the intradermal method described by Porges and Pollatschek,<sup>2</sup> in 1929, attracted our attention because of the ease with which these tests can be performed, and the small cost they entail to the patient. We, therefore, undertook to investigate the reliability of these tests to obtain first-hand information. Both have been reported elsewhere by us, and both have been given support by various observers, whose results we shall refer to later.

### VISSCHER AND BOWMAN METHOD

Visscher and Bowman based their test on the presence of the gonadotropic hormone in the urine of pregnant women. The technique was carried

out by us as follows: To one cubic centimeter of urine are added one drop of one per cent hydrogen peroxid, five drops of one per cent aqueous solution of phenylhydrazin hydrochlorid, five drops of five per cent aqueous solution of methyl cyanid, and five drops of concentrated hydrochloric acid. The mixture is put into a boiling-water bath for twenty-five minutes. A test positive for pregnancy shows a russet color and a flocculent precipitate, and a negative reaction shows a straw color either clear or with a powdery precipitate.

### CLINICAL MATERIAL FOR THE TESTS

We have employed this test in 476 instances, divided into two series. The first included 250 late pregnancies, of which 212 gave a positive reaction, an accuracy of 84.8 per cent. Comparing the Visscher-Bowman method with Friedman tests in sixty-five early pregnancies, we found thirty-six positive chemical tests in forty-one positive "Friedman's," and twenty-one negative chemical tests in twenty-four negative "Friedman's," 87.6 per cent correct. Of nonpregnancy urines, 45.2 per cent showed false positive reactions. This large number of false positives occurred principally in febrile patients, and we assumed that these were due to an increase in catabolic substances in the urine. In this original series we noted that urines of low specific gravity (under 1.015) gave many false negative reactions, whereas in urines of higher concentration errors were less prone to occur. In the later series we discarded low specific gravity urines, hoping to reduce this error. In eighty-one late pregnancies, seventy-one (87.7 per cent) were correct. Eighteen positive Friedman tests included fourteen positive and four negative chemical tests, an accuracy of 77.8 per cent. These figures, although showing an improvement in the late pregnancies (87.7 per cent from 84.8 per cent), were less accurate in the early pregnancies (87.6 to 77.8 per cent). This indicated to us that the elimination of the apparent source of error (low specific gravity) did not influence to any great degree our original figures.

### RESULTS NOTED IN THE STUDY

Our results are at considerable variance with those of the majority of other observers, who found the Visscher-Bowman test accurate in from 88 to 100 per cent of cases. The originators of this test found an accuracy of 93 per cent in known pregnancies, and 83 per cent in early pregnancies. In eighty-three patients investigated by Dolf,<sup>3</sup> 96 per cent of late pregnancies and 95 per cent of early pregnancies were correct. He was the first to call attention to false negatives in urines of low specific gravity, and false positives in febrile patients. Menken's<sup>4</sup> very small series gave correct reactions in 100 per cent of early pregnancies and 88 per cent of late pregnancies. Recent reports by Dodds,<sup>5</sup> Wiesener,<sup>6</sup> and Friedrich<sup>7</sup> credit the test with an accuracy of 90 per cent or better.

### FINDINGS OF OTHER OBSERVERS

Sheehan,<sup>8</sup> in a very recent paper, reported a considerably lower percentage of accuracy (about 75 per cent) in a group of pregnancies. For com-

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Read before the Obstetrics and Gynecology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2-6, 1937.

parison he tested men, and children of both sexes, obtaining results positive for pregnancy in 60 to 80 per cent of these. Urines collected from fifty-six patients just before delivery gave only 34 per cent of positive reactions. Because of the large number of positives in the nonpregnant group, he concluded that a substance present in normal urine was responsible for the color reaction of the test. He found that urinary pigment, urochrome, gave the changes ascribed to the test in degrees proportional to its concentration in the urine. Furthermore, the hormones present in pregnancy urine (estrin and prolactin) did not give the positive reaction. In his discussion he referred to Drabkin's observations that urinary pigment is increased in acidosis and in pregnancy, but decreases before parturition, thus explaining the low percentage of positive reactions observed in urines taken just before delivery. Sheehan also investigated the relation of specific gravity to the results of the test, and found that urines of a specific gravity of from 1.001 to 1.010 gave weak or negative tests, from 1.010 to 1.022 moderately positive reactions, and over 1.022 strongly positive reactions, varying with the normal color of the urine, and thus in proportion to the amount of urinary pigment present. This work perhaps explains the relatively frequent occurrence of false negatives obtained in urines of low specific gravity. Sheehan came to the conclusion that the Visscher-Bowman test represents a change in normal urinary pigment when acted upon by a strong mineral acid, and that it is not a test for pregnancy.

Quite in opposition to this opinion is Friedrich's contention that prolactin (chorionic hormone), when acted upon by hydrochloric acid, not only gives the color reaction and precipitate described by Visscher and Bowman, but is the only hormone which will do this. In addition, he pointed out that a strongly positive test for pregnancy is obtained in conditions marked by an unusual amount of gonadotropic hormone, *i. e.*, carcinoma, menopause. These false positives are also sometimes found with the accurate Aschheim-Zondek and Friedman tests. Dolf, likewise, tested the Visscher-Bowman reaction, using the gonadotropic hormone alone, and seemed satisfied that the reaction was dependent upon it.

Sheehan's statement that the intensity of color of the urine is comparable to the intensity of color developed in the test was recognized by us. But we frequently obtained an apparent positive color reaction unaccompanied by a dark precipitate, and we interpreted such results as negative. In certain dilute urines a heavy precipitate occurred, although only a moderately dark color reaction, and we called these positive reactions. Another source of error was reported by Dolf and substantiated by us, namely, a high number of incorrect positive reactions in febrile patients. He thought this due to the excess products of catabolism. Sheehan's statement that urinary pigment is increased in acidosis may be the true interpretation of this.

#### INTRADERMAL TEST

The intradermal test for pregnancy with chorionic hormone, proposed originally by Porges and Pollatschek, is dependent for its reaction upon the

presence of chorionic (anterior pituitary-like) hormone in the blood of pregnant women. In a later report these investigators announced that the test was not sufficiently specific to be of clinical use. However, Gilfillen and Gregg,<sup>9</sup> Gruskin,<sup>10</sup> and Schwartz<sup>11</sup> did not share this opinion because of their excellent results with this test. Like Gilfillen and Gregg, we have used Antuitrin-S, but have not obtained satisfactory results. Gruskin and Schwartz used a placental antigen prepared by the former.

We have tested 211 patients, 157 of whom were known to be pregnant. Essentially, we followed the technique employed by Gilfillen and Gregg. Two minims of Antuitrin-S are injected into the skin of the flexor surface of the forearm. The resultant wheal should be round and have the appearance of pig skin. The reaction is read at two fifteen-minute intervals. A test negative for pregnancy is shown by an area of erythema up to four centimeters, with pseudopodia, indicating that no chorionic hormone is present in the patient. An absence of a local erythema indicates the neutralizing effect of chorionic hormone and, therefore, a positive test for pregnancy. Our results were as follows: Of 157 pregnant patients, 71 per cent gave a correct reaction, and of fifty-four nonpregnant patients, 80 per cent reacted correctly. Occasionally, latent skin reactions were seen by us, but they are not significant so far as the immediate reading of the test is concerned.

Shortly after the completion of our study, Weisman and Yerbury<sup>12</sup> reported a group of seventy-four observations, the results of which compare closely with ours. Both studies show a high percentage of error, and are more in keeping with the reports of the original German investigators than with the excellent results reported by the American observers mentioned above.

#### SUMMARY AND CONCLUSIONS

From the reports on the Visscher-Bowman and intradermal tests for pregnancy quoted here, one must conclude that the clinical application of these methods is unreliable. It is evident from the conflicting viewpoints expressed in the literature that the chemical reaction of the Visscher-Bowman test is not as yet understood, and until a true explanation of the chemistry can be found, further clinical studies seem futile. The intradermal test, although promising from a theoretical point of view, in our hands has proved disappointing.

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## DISCUSSION

DANIEL G. MORTON, M.D. (University of California Medical School, San Francisco).—Thanks are due to the authors of this paper for bringing us up to date on the status of the Visscher-Bowman and intradermal test for pregnancy. The results of others, as well as their own work, would seem to indicate that neither of these tests are sufficiently accurate to make them of much clinical value. In spite of the tremendous amount of work which has been done on hormones, we still remain abysmally ignorant of the true chemistry and physiology of these substances. Until our knowledge has been materially broadened we are likely to flounder around, making many false starts. It looks as if the rabbits and mice will continue to lead the field for some time to come. This is not strange, for *biologic response* is likely to be the most profitable and reliable source of information while one is dealing with complex or little understood substances.

## SCLEROMA IN CALIFORNIA\*

By HARRY E. ALDERSON, M.D.  
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DISCUSSION by Rea E. Ashley, M.D., San Francisco; Arne E. Ingels, M.D., San Francisco; Otto P. Diederich, M.D., Fresno.

**S**CLEOMA ("Rhinoscleroma"), a chronic infectious granulomatous disease, for a long time was supposed to exist only in southern Europe, but many cases now have been reported in Austria, Hungary, southwestern Russia, Egypt, Italy, Mexico, Central America, California, and other parts of the United States.

## CLINICAL PICTURE

Clinically, scleroma is characterized by the appearance, first, of fairly hard, smooth nodules in the anterior nares. This growth spreads gradually until, in many cases, protruding rounded smooth masses with intact skin surface project from and close the nostrils. It is this part of the process that gave the disease its original name of rhinoscleroma, but there are many cases with mouth lesions only; hence the suggested name, "scleroma."

## DISTRIBUTION

Rhinoscleroma was first reported by Hebra in 1870, and in 1882 von Frisch discovered the organism to which his name has been given. A large number of cases have been reported in the European literature, but until recently relatively few in ours. Possibly the increasing number of cases recognized in America can be attributed to more widespread knowledge of the disease and consequently greater watchfulness on the part of the profession. Most cases, naturally, are seen by otolaryngologists and dermatologists. The first three examples recognized in California were reported by the writer,<sup>1,2,3</sup> and the fourth by E. M. Bingham and O. T. Cutler.<sup>4</sup> All of my cases had nasal,

mouth and throat lesions, and one of them had internal lesions only, the outer nose presenting a normal appearance.

I have been told by patients and by physicians that many cases with mouth lesions only are seen in Mexico, San Salvador and other Central and South American countries. These may be mistaken for syphilis or tuberculosis. The fact that the disease often is unnoticed for a long time makes it possible that we may have many more incidences than we realize in California and Mexico.

The disease is seen in patients mostly between the ages of fifteen and forty, in both sexes and for the most part in individuals whose personal hygiene is poor. My former associate, Dr. Esteban Reyes of San Salvador, writes that the disease is quite common in his country. He states that many cases are seen among anilin-dye workers. In the process of preparing indigo, the plant juice is placed in open tanks for fermentation, allowing flies to swarm over them and to feed on the fermenting liquid. Thus, the disease possibly may be carried by flies. Years ago, when the anilin factories there were flourishing, the disease was very prevalent, but since many factories have closed down the number of cases has diminished greatly. In a more recent report, Doctor Reyes states that, after making investigations of the anilin dye material, extending over several months, he has had completely negative results. He concludes, therefore, that his original theory was wrong and that the dye is probably not a factor. Doctor Reyes has found that intravenous injections of Lugol's solution, the administration of tartar emetic, radical surgical measures, electrocoagulation, and roentgen therapy, all give fairly good results. Roentgen therapy is more efficacious than any form of treatment so far. Doctor Reyes also reports that pure cultures of the Frisch bacillus are very difficult to obtain. He has found organisms in smears from healthy looking mucous membranes.

## NATURE OF THE LESIONS

As stated before, the lesions usually start within the nostrils and spread very gradually. They may extend backward into the larynx, pharynx, trachea, or even the bronchi. A case has been observed where lesions were found postmortem in the mucosa of the cecum, ascending colon, from the ileocecal valve to the hepatic flexure.<sup>5</sup> When the process extends outward over the nose and upper lip, the picture is very characteristic and not likely to be mistaken for anything else, particularly when there are no ulcerations. Ultimately, the mucous membrane process results in atrophy and deforming scleroses, leaving bone and cartilage unaffected, as a rule. Occurring on the palate, the growth may force some of the teeth out of place.

## DIAGNOSIS

The diagnosis is readily established histologically and by finding the bacillus of Frisch, although the latter is not essential. There are cases on record where the organisms were not demonstrated in cultures.<sup>6</sup> In my last case this occurred, but they were readily seen in sections of the tissue. Animal

\* Read before the Dermatology and Syphilology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2-6, 1937.



Fig. 1, Case 1.—Ulceration on nasal lesion, due to biopsy wound.

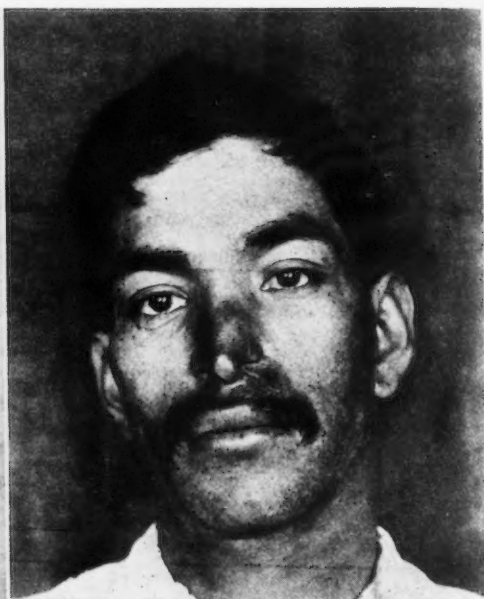


Fig. 2, Case 1.—Showing scarring following eradication of lesions by roentgen ray.

inoculations so far have been unsuccessful. The bacillus of Frisch is very similar to the Friedlander bacillus. The two are thought to be modifications of the same organism. Ormsby's description of the organism is as follows:

"It is a short bacillus with rounded ends, and enclosed in a gelatinous capsule measuring 2 microns in length and 0.5 micron in width. It is arranged singly, in pairs or groups, and lies in the gloea of a Mikulicz cell, or free in lymph spaces. It presents a close resemblance to the pneumococcus of Friedlander and *Bacillus ozenae*, with which it is by some considered identical. Perkins, in a study of the organism of rhinoscleroma, classes it as a member of *Bacillus mucosus capsulatus* group,

in which are included Friedlander's bacillus and *Bacillus ozenae*. He considers that the organisms found in the nose in this disorder vary in different cases, though of the same general group, and that the so-called rhinoscleroma bacillus has no etiological relation to the disease, but is rather a secondary infection. Morris and Dore found a short, coccoid, Gram-negative, capsulated bacillus, corresponding to the bacillus of Frisch and resembling Friedlander's pneumobacillus."

#### HISTOLOGY

Histologically, the process is a granuloma. There are many infiltrating plasma cells in the corium, and there is hypertrophy of the collagen, particularly at the periphery of the growth. The most conspicuous element in the lesion is the "Mikulicz" cell, which is also seen in leprosy, glanders, bubonic plague and a few other conditions. This cell is from fifteen to twenty times the size of a red blood cell and contains one or two nuclei, usually toward the border. The cell protoplasm is replaced by a fine, foamy network, for which it is called "lace" or "foam" cell. It usually contains Frisch bacilli, and is supposed to be a degenerative form of mononuclear leukocyte. There is also seen among the infiltrating cells the so-called "Russell's body" of Unna scattered throughout the lesion. These bodies take the acid dye deeply. They contain no organisms.

#### REPORT OF CASES

Briefly, the reports of my three California cases are as follows:

CASE 1.—Stanford history No. 1228;<sup>1</sup> male; age, 24; Mexican; laborer. Has never resided outside of northern Mexico. He came direct to San Francisco recently.

Family History.—Negative.

Past Health.—Never ill before (as far as he knows he has never been exposed to anyone with lesions resembling



Fig. 3, Case 2.—Scleromatous lesions on hard palate, inside nose, pharynx and larynx. None on outer nose.



Fig. 4, Case 3.—Scleroma showing palatal and nasal lesions.

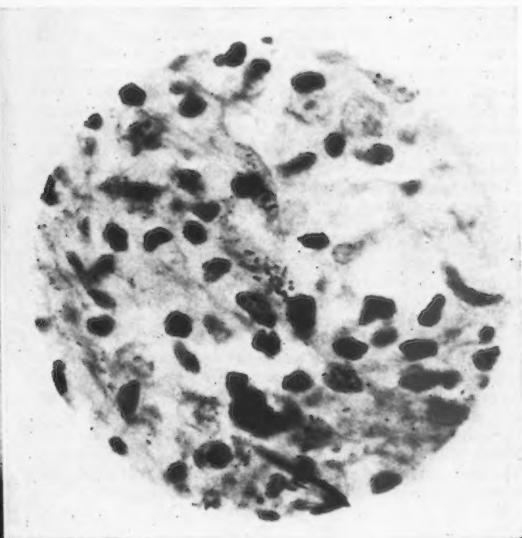


Fig. 5, Case 3.—Scleroma showing Frisch bacilli and Mikulicz cells in section.

in any way those on his nose). No history of syphilis. Wassermann was negative.

**Present Condition.**—Entire left nostril occluded by a solid, hard growth covered with intact epithelium. On outer side of nose in depression above left ala, a similar pea-sized growth. Left tear duct occluded by similar growth. The posterior half of hard palate has raised thickened mucous membrane, covered with superficial ulcers. Some of these superficial ulcers are on upper part of both tonsils.

**Clinical Diagnosis.**—Rhinoscleroma.

**History.**—Seven months ago a small red papule appeared on left side of nasal septum. He picked this frequently. It gradually increased in size until it completely occluded the nostril, involved the hard palate (no perforation), and extended up left tear duct.

A biopsy was taken from the nasal growth, causing the ulceration. During the past three weeks the growth has returned in this cavity. Bacteriologically and histologically, the diagnosis is established.

A pure culture of a Gram-negative bacillus was found in scrapings. This organism, by the ordinary differentiating cultural methods, resembled the pneumobacillus of Friedlander.

The patient was treated with an autogenous vaccine, resulting in temporary improvement. Subsequently, deep roentgen therapy apparently eradicated all the lesions, external and internal. The patient later disappeared, so it is not known whether or not the cure was permanent.

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**CASE 2.**—Our second case<sup>2</sup> was reported as follows: E. F., a mechanic, male, aged 39, unmarried, a native of San Salvador, complained of hoarseness and difficulty, of six years' duration, in breathing. The family history was unimportant. The patient was born in San Salvador. He had always been strong and well. About twenty years before he consulted us he had had a genital "chance," with no sequelae that were recognized.

In 1921 he fractured his tibia and made a good recovery. Fourteen months before he had a boil on the right leg, which soon subsided. There was no history of past cardiovascular, respiratory, or gastro-intestinal disease. His digestion had always been good. He had not had a genitourinary disease.

About six years before we saw him, a choking feeling in the throat and dyspnea gradually developed; two years later the condition had become severe. At times the patient had severe choking spells with pronounced dyspnea. There was a constant hacking cough, producing thick, tenacious sputum. This condition did not affect his digestion.

Examination by several nose and throat specialists resulted in a clinical diagnosis of syphilis, in spite of eight negative Wassermann tests. Examination of the sputum gave negative results, but Frisch bacilli were not looked for. The patient was given eight injections of neoarsphenamin and twelve of bismuth, and a course of inunctions with mercury and potassium iodid. This treatment did not have the slightest effect on the disease.

An examination of the nose and throat by Doctor Bacher, in 1926, revealed that the right nasal vestibule was greatly narrowed by thickening of the septum inferiorly, and by an easily bleeding polypoid mass superiorly. There was a similar red, soft, thickening on the left side of the nasal septum inferiorly. There was no growth around either outer nostril. The uvula and the adjacent part of the soft palate were destroyed by the process, and the soft palate was adherent to the posterior pharyngeal wall, admitting only a small probe to the nasopharynx.

In March, 1931, this condition and the presence of a reddish thickening of the hard palate were noted. Biopsy was performed on a specimen from the hard palate, and smears and scrapings were made. Examination of the latter, as well as cultures, established the diagnosis of rhinoscleroma. The patient's general physical condition was favorable.

**Microscopic Report.**—Tissue from the hard palate was examined. Epidermis: There was marked thinning of the entire layer, to the extent that there were only one or two rows of cells in a few places. Nevertheless, an occasional greatly elongated interpapillary process existed. Evidence of the underlying pathologic condition was entirely lacking. Subepidermal structure: The corium and underlying structures suggested a chronic inflammatory process characterized by the growth of new connective tissue, and the presence of innumerable plasma cells in all stages of development and degeneration. Closer observation showed that the infiltration was also composed of Mikulicz cells, colloid or hyaline cells, endothelial cells, lymphocytes, polymorphonuclears, and a few Russell's fuchsin bodies.

While the tissue was extremely vascular and the lymphatic spaces noticeably dilated, perivascular infiltration was not a characteristic feature because of the chronicity of the process and the innumerable cells present.

Countless numbers of Mikulicz cells were scattered profusely throughout the tissue. These large, pale, swollen cells showed little or no tendency to stain with eosin, and had a protoplasm foamy or dropsical in appearance, which in many instances contained a variable number of Frisch bacilli. These bacilli were short, the size being about 2 by 5 microns. They were enclosed in a gelatinous capsule, but

this was less readily apparent when they were viewed in the tissue. The bacilli occurred not only in the protoplasm of the Mikulicz cell, but free in the lymph spaces.

The colloid type of cell, with its compressed nucleus pushed toward the periphery in the earlier stages of its development, and sometimes absent at the time of its rupture, was present, but not in the same abundance as the Mikulicz cell.

Examples of the Russell's fuchsin bodies, staining a yellowish or yellowish red with eosin, were found free in the tissue singly and in groups up to eight.

The entire process seemed to be one of replacement, few of the original structures being present. Elastic fibers were entirely lacking. The chronicity of this case is brought out by the fact that it is only in the later stages that one finds such a thick, collagenous growth of connective tissue.

A histopathologic comparison of this case with the one that I first reported brings out the fact that, while the bacilli of Frisch within the tissue are more numerous, fewer are contained within the Mikulicz cells. The proportion of plasma cells to the other cells was greater in the earlier case.

**Treatment.**—Roentgen treatment was given by Dr. Robert Newell of the department of radiology, Stanford University. Deep roentgen therapy at an effective wavelength, 0.17 angstrom unit (moderately hard x-ray—150 or 100 r), was given alternately to each side of the neck and face daily for twenty-four days.

**Course.**—On July 13, 1931, it was noted that the patient showed marked improvement and felt better in every way. He was now able to do light work. He was still hoarse, but there was no stridor. The pharynx appeared the same. In September, 1931, at the time of writing, the patient was apparently well, with the exception of hoarseness resulting from much destruction of tissue.

**Note.**—On March 24, 1932, the patient called at the clinic, presenting a recurrence of the condition of several days' duration. There was evidence of activity on the hard and soft palate, and along the scars of the posterior pharynx. Roentgen treatments were instituted again the following week.

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**CASE 3.**—Our third case record<sup>3</sup> (which will appear shortly in the *Archives of Dermatology and Syphilology*) follows:

Mrs. B., Stanford History A43004, aged 29, white, American housewife, was referred to us by Doctor Diederich of Fresno, in 1934. She presented an enormous nodular growth on the nose and upper lip and hard palate, as shown in the illustrations. The left nostril was almost completely obstructed. There were palpable glands in the submaxillary and anterior cervical regions. It is interesting that the first lesions noticed were seen on the hard palate in 1921, the lip and naris lesions in 1927, and the external nasal growth in 1930. It is possible, of course, that small intranasal lesions were present and unnoticed before the palatal growth was discovered.

The patient had lived as a child in Arkansas and Oklahoma, but since she was twelve years of age she has resided in the San Joaquin Valley, where there are many Mexican laborers.

Her past and family histories present nothing significant. She has three healthy young children. Physically, she is rather obese and in apparently excellent health, barring her rhinoscleroma.

Repeated blood counts, urinalyses, blood Wassermanns, stool and gastric analyses, gastro-intestinal x-ray examinations, and attempts to visualize the gall-bladder—all gave negative results. Her B. M. R. was minus 8.

In March, June, and November, 1934, she was given heavy superficial and deep roentgen therapy. This was repeated in May, 1935. On this occasion, the roentgenologist gave her nupercain ointment to try to modify an expected x-ray reaction. Instead, it was followed by violent inflammation, with much edema extending over the "flush area" of both cheeks. After this acute inflammation had subsided, extensive nodular areas of rhinoscleroma remained, involving most of both cheeks. All of the areas persist as they were in 1935, excepting that the nose is much smaller and the cheek lesions have flattened down considerably.

Repeated attempts to grow the organism have been unsuccessful, but the Frisch bacilli were readily demonstrated in stained sections. Sections were stained for acid-fast organisms, but none were found.

Dr. Arne Ingels reports his studies of the sections as follows:

"The epidermis shows thinning (in places only two to three layers of cells). No hyperkeratosis nor parakeratosis is present. A moderate inter- and intracellular edema is seen. The regular arrangement of the epithelial cells, including the basal cell layer, is maintained. Melanin-stained sections (Becker stain) show absence of pigment in the basal cell layer.

"The rete pegs are almost completely obliterated. A narrow zone, corresponding to the papillary layer, is comparatively free from inflammatory changes. Otherwise the cutis shows dense masses of round-cell infiltration, consisting mainly of lymphocytes. A few mast cells and histiocytes are seen. Some large areas show a lighter appearance, due to the frequency of Mikulicz cells. Gram-stained sections show many Gram-positive cocci rod-shaped, encapsulated Frisch bacilli, both in the Mikulicz cells and extracellularly. Giant cells, of the foreign body type, are seen in the vicinity of the foam cells, whereas no areas of caseation nor any tubercle formation are present.

"Stains for acid-fast bacilli are negative. The abundance of sebaceous glands in the sections is explained by the site of the biopsy, i. e., the vicinity of the nose. **Diagnosis:** Rhinoscleroma."

Our experiences, and the fact that there are many Mexican laborers, who may be carriers, in the Southern California valleys, make us feel that scleroma may be more prevalent here than is realized.

490 Post Street.

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#### DISCUSSION

REA E. ASHLEY, M.D. (384 Post Street, San Francisco). I consider it a great honor to be asked to discuss Doctor Alderson's paper before this section of dermatologists.

In the main, rhinologists know little about diseases of the skin. This particular disease, however, does come within both specialties, since it primarily involves the skin about the nose and the mucous membrane of the upper respiratory tract.

The usual site of the pathology is in either the nose, nasopharynx, or larynx. Deeper lesions in the trachea and bronchi are always secondary to primary lesions of the nose, nasopharynx, or larynx. It is interesting to note that a lesion may occur in the nose and a second, similar lesion in the larynx, while the intervening mucous membrane may be entirely normal.

It is a disease of filth, found only among patients born out of the United States or born of foreign parentage. Chamberlin, in a recent exhaustive review of the literature, was unable to find a single case report of the disease occurring in native Americans.

Knowing I was to have the privilege of discussing Doctor Alderson's paper, I made inquiries at various clinics, which I recently visited, regarding the prevalence, treatment, and results obtained in this disease. While no statistics were available on such short notice, I received

enough information to convince me that the disease is far more common than the literature would lead one to believe.

Figi, at the Mayo Clinic, has treated several cases during the past few years. X-ray, radium, and electrocoagulation have been more or less successful methods of treatment. Fürstenburg of Ann Arbor sees very few cases of scleroma. Hays Martin of Memorial Hospital, New York City, has several cases under treatment at the present time. His methods are similar to those of Figi's, and his results about the same. Jackson of Philadelphia will soon report several cases of laryngeal scleroma. Lejune has seen no cases at Tulane Clinic, New Orleans. Jessburg has four cases under treatment at the present time in the Eye and Ear Hospital, Los Angeles—two of which cases are in the nose and two in the larynx. Proper doses of deep x-ray have proved very successful in his hands.

In 1932, before the Western Section of the Triological Society, Dr. Eugene Lewis of Los Angeles presented two cases of rhinoscleroma. Both patients were Mexicans. He subsequently reported marked improvement in both cases following systemic treatment. The first patient was apparently cured after one year's treatment, and the other much improved after eight months' treatment. These results lead Lewis to conclude that the systemic factors of etiology seem of greater importance than local pathologic factors, and that aims at treatment should be directed toward systemic changes rather than toward local therapy.

As Doctor Alderson states, the disease, although considered rare, is either becoming more prevalent or is more frequently recognized, due to better and more careful diagnosis.

Much experimental work is still necessary on this disease, since the etiology is not definitely determined, nor is the treatment particularly satisfactory.

I wish to compliment Doctor Alderson on the thoroughness with which he has presented this subject, and thank him again for the privilege of discussing it.

✱

ARNE E. INGELS, M.D. (490 Post Street, San Francisco). As stated in the paper regarding the epidemiology of rhinoscleroma, this disease prevails under poor hygienic conditions, which it has in common with Hansen's disease, lues, yaws, and skin tuberculosis, also sarcoid. These same diseases may at times offer similarities confusingly alike, not only clinically but also histopathologically. All may start out on any part of the body surface, and, more important, all may show the initial lesion on the mucous membranes. The third case mentioned in the report was quite soft to the touch; in color consistency and outline, very similar to a tuberculous leprosy, which we had a few days ago. The Hansen's disease, however, was diagnosed from nasal scrapings and acid-fast bacilli in sections.

Histopathologically, the initial lesion in all of them may present a picture of the cutis which even Oscar Gans admits is not diagnostic. Diagnosis rests with the demonstration of the virus. In the incipient stage they all may form masses of round cells where lymphocytes, leukocytes, plasma cells, mast cells and degenerated cells are thrown together without specific features.

The Mikulicz cells, which are degenerated, connective cells, are not diagnostic. Identically looking foam cells are found in leprosy, the so-called lepra cells, the foam cells in sarcoid. The Russell's hyaline bodies are nonspecific hyaline bodies also found in Hansen's disease. Occasional caseation and necrosis in rhinoscleroma and Hansen's disease simulate tuberculous processes.

The acid-fast bacilli in Hansen's disease usually occur in great masses, arranged in "cigar bundles." They may occur scantily, however. An additional feature is that they occur in the plain acid-fast forms, as well as in presumably degenerated, nonacid-fast forms, which in turn may simulate the encapsulated Frisch bacillus. This latter is notoriously multiform in shape.

Some investigators hold that Hansen's bacilli are encapsulated, so the degenerated bacilli not taking acid-fast stain may well be taken for Frisch bacilli.

The positive antigen antibody tests are of decided value.

✱

OTTO P. DIEDERICH, M.D. (Mattei Building, Fresno).—My experience with rhinoscleroma is limited to the one case that Doctor Alderson is reporting. This patient was

referred to me, with a diagnosis of tuberculosis of the skin made by a well-known pathologist, who had examined tissue from the nose, as my clinical diagnosis was rhinoscleroma. I had him review the sections thoroughly with this in mind, but he was unable to verify my diagnosis from the sections he had. I was unsuccessful in proving the case rhinoscleroma, so referred the patient to Stanford University for further study. I recently saw her, and the disease has spread to involve the entire nose and both cheeks. Treatment with x-ray, arsenic, tartar emetic, and gold have been unsuccessful.

## THE LURE OF MEDICAL HISTORY†

### THE SELECTION OF THE SAN FRANCISCO MEDICAL CENTER SITE\*

By HENRY HARRIS, M.D.

Berkeley

I.

BACK in the days of the horse-and-buggy time of 1895, local educators were treated to an unusual decision, for the San Francisco professional schools of the University of California, instead of being set up in a populous neighborhood, were to be placed in a barely populated district. They were to be tethered to a region of shifting sand dunes and of steep hillsides covered with growths of sagebrush. As a short prelude to the story about to be told, there is presented a rapid glance at the two chief actors in this decision—Dr. R. Beverly Cole and Hon. Adolph Sutro, two actors in this and in many other telling incidents of an earlier California, for they were both notable men, idealistic pioneers of the growing West.

RICHARD BEVERLY COLE

Dr. Richard Beverly Cole (1829-1901), a Virginian, arrived at San Francisco in 1852. He was professor of obstetrics and diseases of women for many years at the University of California Medical School, and after the founder's death in 1880, he had the largest part in determining its policies. He was well adapted for this distinction, being a successful practitioner, politically adept, of gusto, humor, and eloquence. In 1895, just when the selection of a site was being debated, Cole was elected president of the American Medical Association, the first San Franciscan so honored. He said of our school:

I have reached the top rung of the ladder in my profession by having been selected president of the American Medical Society, and now my only desire is to establish the college.

Cole was then sixty-six years of age. He died six years later, while serving as San Francisco's coroner.

ADOLPH SUTRO

Adolph Sutro (1830-1898), Prussian-born, of Jewish antecedents, came to San Francisco in 1850 as a lad of twenty years. He was a well-educated,

† A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

\* Delivered at Toland Hall, University Hospital, San Francisco, March 25, 1937.

Paper One in a series of lectures on the history of the Medical School of the University of California.

eminently successful mechanical engineer and promoter, imaginative, creative, and imperious. In 1879 he completed the fourteen-year task of driving through a drainage tunnel that tapped the silver mines of the Comstock Lode in Nevada. Its success made him a millionaire, and with faith in the future of San Francisco he bought up about one-twelfth of the county's unplotted acreage, including such areas as the Cliff House, Sutro Heights, and the Sutro Forest. This busy man of affairs nourished both a fierce hate and a sustaining love. He hated the Southern Pacific Railroad and fought it for almost thirty years, while his great love was expressed in books and the collecting of books. In the auction rooms of Europe, he had gathered about three hundred thousand items, remarkable for their excellence and rarity, and including four thousand incunabula and manuscripts in Hebrew, Latin, Greek, English, French, German, Spanish, and Arabic. There were Aztec writings and a large material on Spanish America. Experts ranked it fourth in the nation's collections, and in fifteenth and sixteenth century products it was unexcelled in America. Of this collection Andrew D. White wrote in 1892:

I must confess that of all the amazing things on the Pacific Coast (and I encountered surprise after surprise), the most unexpected was the discovery of the Sutro Library, and of the fact that so few people in California knew anything about it.

In 1895 Sutro wrote:

I look upon the present Sutro Library as but a nucleus of what it will be. It shall be my life's work and pride to make it the most complete reference library, embracing the sciences, arts, and mechanics, upon the American continent.

Sutro was then sixty-five years old, afflicted with diabetes, harassed with financial entanglements, and, as mayor of San Francisco, annoyed with political bickerings. He died three years later. With this prologue intended as a tribute to two of California's pioneers of contrasting types seen in the sunset of their well-spent lives, we pass to the main theme.

#### ESTABLISHMENT OF THE PROFESSIONAL SCHOOLS: THE AFFILIATED COLLEGES

The University of California opened its doors in 1869, and in the following year welcomed the advances of the Toland Medical School to join. Delayed for three years by the exactions of the founder, affiliation was finally achieved in 1873, largely through the political engineering of Doctor Cole, supported by the wisdom of the University's second president, Dr. Daniel Coit Gilman. The old medical school was in the "complete and stately" Toland Hall on Stockton Street between Chestnut and Francisco streets, near the City and County Hospital in the North Beach, a region "favoring the health and industrial habits of the students." There it carried on honorably for some thirty-five years. In 1873, also, the School of Pharmacy enrolled its first class, gave instruction at Toland Hall, and immediately fortified itself by affiliation with the University. The Hastings Law School, endowed and organized in 1878, furnished instruction by three or four teachers in the old Pioneer Hall. Though a University affiliate, it was loosely bound,

since its endowment of \$100,000 was paid outright to the State. On the recommendation of the medical faculty, California's first School of Dentistry was formed as a University affiliate in 1881. Its students received instruction at Toland Hall until 1890, and after this at Taylor and Market streets. Of these four schools known as the Affiliated Colleges, the medical one, both in the financial value of its plant and in the influence of the medical faculty on the cognate subjects, held a predominant position, and Toland Hall was the chief theater of action. A fifth, the Veterinary College, added in 1894, came too late to be a factor in the discussion of a site. Instruction to its few matriculates was given at Post and Fillmore streets, and it suffered from a continuous financial anemia, despite an occasional transfusion from the Ingle-side Race Track's gate receipts.

#### CLINICAL TEACHING AT TOLAND MEDICAL COLLEGE

Facilities for clinical teaching at Toland School were severely dislocated in 1885 when the City and County Hospital was moved to a tentative site on Potrero Avenue at Twenty-second Street. Thereafter the school was left without easy access to teaching material, and the faculty became aware that Toland Hall, built in 1864, was too small for its some three hundred students, too small for enlargement of laboratories, and so decrepit that all students' fees were spent on repairs to the building. Planning for the future, a plot was bought on Potrero Avenue, opposite the new City and County Hospital. Nothing developed on this site, however, for there was no money for a new building; and after several years of futile appeals, the faculty's sole recourse was to ask the State to provide one. In 1891, a bill appropriating \$80,000 for such a building passed both Legislative Chambers, but was vetoed by Governor Markham for economic reasons.<sup>1</sup> Then an enlargement of this plan was presented in 1893. This time the bill provided housing for all the four professional schools and called for \$250,000. It met the same veto by the same governor and for the same reason.

#### ONE SITE FOR THE FOUR PROFESSIONAL SCHOOLS

The new idea of centering the four schools on one campus was originated apparently by the University regent, J. B. Reinstein, a San Francisco attorney who later handled the legal interests of Mrs. Phoebe Hearst.<sup>2</sup> For the third time relief was attempted in 1895 when a California alumnus, James H. Budd, was governor. An appropriation of \$250,000 was again asked, covering the housing needs of the four schools. Opponents of the measure alleged that these colleges were private, proprietary schools and not integral parts of the University at all. Why should the groaning taxpayers pay for the education of professionals? If once incurred, would not the expense be recurring? It was not possible to provide land and buildings for the four schools with \$250,000, and

<sup>1</sup> Appendix to Journals, Thirty-First Sessions, Vol. I, p. 9.  
<sup>2</sup> San Francisco Examiner, March 28, 1897.

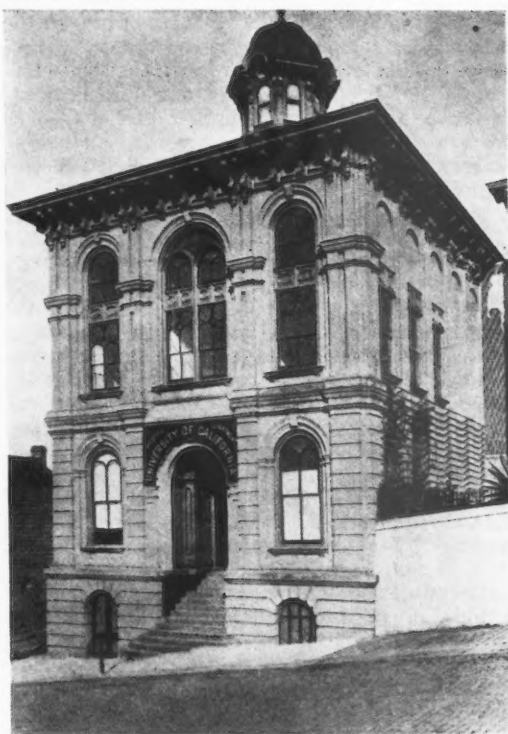
would not the stench of the anatomical rooms drive out the other students? Why, eventually medicine would seize the entire benefits of this extravagant measure! The political mood of California was as conservative as was the nation's during the then second presidential incumbency of Grover Cleveland. But the State's population growth was rapid, University matriculates had tripled and the Affiliated College attendance had doubled from 1890 to 1895. California's oriental labor disputes were quiescent, the great railroad strike of 1894 was over, and interest in education was heightened by the opening of Stanford University in 1891. Under these favorable influences, the Affiliated Colleges Bill was passed, with approval, in March, 1895.

#### QUANDERY CONCERNING THE SITE

Immediately the Regents appointed a Site Selection Committee of four faculty members, one from each professional school, with Regent Phelps, Doctor Cole serving as chairman. Cole went East with an architect to observe medical architecture, while the Committee received offers of possible locations. It was on this eastern visit, and while attending the 1895 sessions of the American Medical Association, that Cole received the presidency of that body. Upon his return, encouraged and assured by the welcoming acclaim of the city, Cole let it be known that the Committee had no money for land, it expected a free site, and asked, furthermore, if there were any wealthy, public-spirited men left in San Francisco. Many sites were offered, but most of them were too small or too costly. The Committee's quandary was expressed a century before by Thomas Warton, Professor of Poetry at Oxford:

Within what mountain's craggy cell  
Delights the Goddess Health to dwell?

All possible sites were eventually sifted down to two free offerings. One, the John Centre plot of five and one-half acres, was on Potrero Avenue between Fifteenth and Sixteenth streets, and accessible—only nine minutes by foot from the City Hall, and was near the City and County Hospital. But its detractors found a faulty title, the expense of grading and retaining wall, a view of only Alameda County shores and Butchertown, heaps of rubbish, bottles, tin cans, babies, and goats. The other offer of free land was the generous one of Mayor Sutro, made in July. It concerned twenty-six acres intended as the location of a library to house his many books. The western half, thirteen acres, was now offered to the State for its professional buildings, while the eastern half was reserved for the Sutro library. This parcel lay south of the city's great park on J Street between First and Fourth avenues, two and a half miles from the City Hall, and was at the city's geographic center. Its elevation of 400 feet gave an inspiring view of the ocean and bay shores, of the Golden Gate and of the park. Back of it were hills, giving protection from winds, though at times the trade winds came to it from the ocean. Street-cars ran near by; later on transportation would be better. Sutro seductively recalled to the Regents the magnificence of his books and seductively again stressed



Toland Hall, Medical Department

the importance of a library to a seat of learning. Opponents of this choice, including two of the medical faculty who soon resigned, pointed to the inaccessibility of this sand-dune site. "Even were the Sutro library ever built," they said, of what use would these antiquarian and classical books be to the Affiliated College students? From where would clinical material come? What had a beautiful marine view to do with the study of anatomy and pathology?

#### THE SELECTION OF THE PRESENT SITE

On September 1, the Committee and a few Regents drove up to inspect Sutro's offering: "Magnificent," said Doctor Cole; "Glorious," said Judge Wallace"; "Extremely picturesque," said Regent Phelps.<sup>3</sup>

It was recalled that Mr. Stow, a promoter of Golden Gate Park, had desired that this choice bit be added to the Park; there were visions of a noble library rising to the East, of the possible location of the City and County Hospital a few blocks to the West. The professional members of the Committee were unanimously for the Sutro site, and without particular opposition the University regents accepted it a week later. Sutro somewhat arbitrarily stipulated that construction was to start in six months, that buildings were to be approximately fireproof and placed 75 to 100 feet apart. Like all experienced Californians, he, thinking of his books, feared destruction by fire. The marine view was to be safeguarded by requiring all build-

<sup>3</sup> Newspapers of September 2, 1895.

ings on the north side of J Street (and Sutro owned the land) to reach no higher than thirty feet above ground level. A deed of gift was signed on October 8, 1895, but in this instrument no mention was made of a library. A fulsome letter of thanks from the Regents followed, emphasizing invitingly the importance of his library, but Sutro never bound himself legally to provide one.

#### THE SUBSEQUENT DELAY

Now came six cantankerous months of drawing plans, advertising for plans, bids for construction, the squabbling of architects, unraveling the knots of governmental red tape, and, worst of all, in suspecting Sutro's motives. "Why all this unnecessary delay?" asked newspaper writers. An editorial in the *Chronicle* opined that Los Angeles and San Diego did things faster: they took but eighteen months to metamorphose from village to city.<sup>4</sup> Sutro's limit of six months for starting construction was extended by request to a year. He was naturally annoyed by the seeming intrigue, and reverted to his old hate for the cause of the delay. In 1894 Sutro was elected Mayor of San Francisco on the Populist ticket, and now his wranglings with the Board of Supervisors, added to his many private cares, made him more irascible. At a meeting of the Site Committee, which Governor Budd attended with several Regents, Sutro suddenly appeared in a fighting mood. He charged the Governor and some of the Regents with being under the control of the Southern Pacific Railroad Company. Of course, this vexatious delay betrayed a preference for the Potrero site. Was it not near the Southern Pacific properties? He would not trust such Regents with his library. His own Board of Trustees would handle the matter—and the library would be a gift to the city. This snarl grew out of a deepening suspicion that Sutro was evading the building of a library, and in vain did the Regents try to put his earlier promises in the form of a legal instrument. "He is booming his real estate," "He is evading taxes," "He wants the State to build his library," said his enemies, and most of 1896 passed with tardy progress steeped in vituperation. At that, the State cumbrously carried out its obligation, plans and bids were finally accepted, and on October 20, 1896, just a year and twelve days after the signing of the deed, work was started on this site. On request, the State Prison Directors supplied granite quarried by the prisoners of Folsom at a saving of \$10,000, the medical faculty subscribed over \$1,100 for plans, the architects reduced their fees, the builders accepted changes reasonably, and as the four structures rose, it was granted that planning and building were well and honestly done. Medicine was to occupy the middle building; law, the one to the west; pharmacy and dentistry, the one to the east; and veterinary science was to be located in the rear.

#### LAYING OF THE CORNER STONE

State and University officials, citizens, teachers, and students, gathered joyously for the Medical School's corner stone laying, enacted with Masonic

ritual, on March 27, 1897. Cole, exuberant, and himself a former Commander of Knights Templar, helped the chief dignitary swing the stone into position and wield the symbolic trowel and mortar. There was florid oratory, but portentously, a heavy rainstorm soaked the assemblage. The chief speaker, Lieutenant-Governor Jeter, declared the rain drops were tears of joy running down the face of Nature, but in the local medical journal these drain drops were ascribed to the falling tears of Aesculapius, weeping at the Medical School's sand-dune burial. Sutro, no longer mayor, speaking shortly and in a low voice, extolled the site. About a year and a half later, on October 22, 1898, the new buildings were dedicated; Cole, triumphant and expansive, saying that, in some respects, the Medical Building was unexcelled in all the world. The other chief actor was dead, Sutro passing away in August, 1898. His estate was estimated at over a million dollars, but it carried a mortgage of \$700,000, and the assets were frozen. He had been too land-poor to build his library.

#### BUILDINGS OPENED IN 1897

San Francisco did not agree with Cole's superlatives as applied to the new Affiliated Colleges, for it took from twenty to forty minutes to reach them, and the State had made no provisions for furnishings or equipment. Nevertheless, didactic teaching in medicine began here that year, supplemented by clinical teaching in a new clinic at 155 New Montgomery Street and in the far-away City and County Hospital. The Hastings Law School utterly ignored its new home. Beginning in 1901, and for thirty years afterward, its intended building served as an anthropological museum for the valuable collections financed by Mrs. Phoebe Hearst. Here also the unique Indian, Ishi, the last survivor of his tribe, was exhibited. The three other schools eventually accepted their new homes—pharmacy in 1899, dentistry in 1900, and veterinary science in about 1903. The dental school opened the first clinic on the site upon occupancy in 1900, but wisely continued the old one in the downtown section. But the hope was often repeated that some good and wealthy citizen would provide a hospital on the site, for there were no sick people there to serve or study. Gaunt, empty and remote stood the Affiliated Colleges, so for many years one could not have boasted that "San Francisco knows how."

#### APRIL 18, 1906

Then Nature and San Francisco both conspired to change the picture. On April 18, 1906, a memorable earthquake bumped, shook and whirled the city for about fifty-three seconds. Soon afterward one saw, through the early morning air, thin columns of smoke rising from separated sections of the city, dire foretellers of fire which destroyed four square miles of San Francisco's business area. The losses were prodigious. The Affiliated Colleges' loss of \$35,000 included the burning of the downtown dental and medical clinics, while the University suffered a yearly income reduction of \$100,000. Unfortunately, about three-quarters of the Sutro library was stored in the Montgomery

<sup>4</sup> San Francisco Chronicle, April 9, 1896.

Building, and these books, including nearly all the incunabula, were lost. A like tragedy befell the Pioneer Society and Odd Fellows' libraries, all rich in California books, documents, and mementoes. Many thousands of home-seeking citizens trudged to outlying districts, including the Sunset Addition, in the neighborhood of the lonely Affiliated Colleges. The fire had brought clinical material to the doors of the schools.

#### ESTABLISHMENT OF THE OUT-PATIENT DEPARTMENT

Following the earlier example set by the dentists, the medical faculty opened an out-patient department in its quarters two months after the catastrophe, and the first two years of medical instruction in the laboratory subjects was transferred to the Berkeley campus.

#### THE ORIGINAL HOSPITAL

Through private gifts, especially an endowment of \$100,000 from the Massachusetts Relief Fund, a fairly equipped hospital of about one hundred beds was established in the Medical Building in 1907. This achievement was accompanied by the inauguration of the University's first School of Nursing. Despite these adjustments, it was a period of arrested growth. There were but twenty-six medical students in 1907, and later the clinical material and clinical instruction were proved to be inadequate, and the separate teaching of the laboratory subjects at Berkeley was awkward. There were schemes to move the entire Medical School to Berkeley, or to amalgamate it with the Stanford School of Medicine. These schemes came to naught, but they hastened the planning in 1915 of a new and larger University Hospital of 250 beds.

#### HOOPER FOUNDATION FOR MEDICAL RESEARCH

Most heartening in this discouraging time was the accession of the Hooper Foundation for Medical Research in 1914. Its technicians were placed in the former Veterinary quarters, since after 1910, "from snout to tail," veterinary science was taught at Berkeley, where it became a live division of the Department of Agriculture. In the meantime, Regent William Crocker took the lead in getting some \$600,000 privately subscribed for the new hospital, and this unit was occupied in 1917. The new Nurses' Home was ready for use by 1919. It was purchased the following year, having been previously leased. This home and the block intended for the new Dentistry Building, bought in 1921, both lie north of the original site. Sections to the east, where Sutro's library was to have been, were bought from certain of his heirs in 1928. Incidentally, what remains of Sutro's books, about 70,000 items, was given to the State and is well housed in San Francisco's Civic Library. The erection of the out-patient addition in 1931 to 1933 necessitated the return of the anthropologic museum to Berkeley, as the intended Law School Building was demolished. It was the first of the large buildings to go, and it seemed jinxed from the first. Instead of the original grant of thirteen acres, all south of Judah Street, the enlarged San

Francisco campus now covers almost twenty acres, extending both to the south and north of that street.

#### EPILOGUE

The State in 1895 thought to provide a home place for all of its University departments operating in San Francisco, including law, biologic laboratories, university extension, and such others as time would bring. Doctor Cole, in 1895, envisaged a busy, professional village with shops and restaurants, a self-sufficient seat of learning. Adolph Sutro, in 1895, conjured up a clustering place of schools built amid beautiful lawns, flower-beds and trees, while from the schools came crowds of students hurrying to his priceless library. Time serving to change the pattern, there eventuates a great and growing center where all of the healing arts and sciences are studied. Thus, in the MEDICAL CENTER that we know is realized more of the original content than proceeds from most visions or dreams of founding fathers.

2600 Ridge Road.

## CLINICAL NOTES AND CASE REPORTS

### RELAPSING NONSUPPURATIVE PANNICULITIS

By ALFRED C. REED, M.D.

AND

HAMILTON H. ANDERSON, M.D.  
San Francisco

WE wish to record what is apparently the seventh reported case of relapsing febrile nodular nonsuppurative panniculitis (Weber-Christian Disease).

Henry A. Christian<sup>1</sup> in *Oxford Medicine* summarized this rare disease up to 1934, noting that to that time only three cases had been reported, the third by himself<sup>2</sup> in 1928. He wrote: "So far, three instances of this disease have been reported, the first by Gilchrist and Ketron,<sup>3</sup> under the title 'a unique case of atrophy of the fat layer of the skin, preceded by the ingestion of the fat by large phagocytic cells, macrophages'; the second by F. Parkes Weber,<sup>4</sup> using the term 'relapsing nodular nonsuppurative panniculitis, showing phagocytosis of subcutaneous fat-cells by macrophages'; and the third by Henry A. Christian,<sup>2</sup> adding to Weber's chief terminology the word 'febrile.' No other cases have been found in the literature."

In addition to these, Brill<sup>5</sup> notes the first recorded case by Pfeiffer<sup>6</sup> in 1892. The fifth case was reported in 1933 by Alderson and Way.<sup>7</sup>

The sixth case was reported by I. C. Brill<sup>5</sup> in 1936. Brill carefully reviews the preceding five cases, in addition to his own. He summarizes the distinguishing clinical features as follows: (1) Fever in recurring attacks; (2) nonsuppurative lesions of the panniculus adiposus with a nodular distribution; (3) depression on the surface of the skin from atrophy of the fat, which accompanies or follows healing of the lesions. The



Fig. 1.—Subcutaneous tissue from a case of panniculitis. (Kindness of Dr. J. F. Rinehart.)



Fig. 2.—Subcutaneous tissue from a case of panniculitis. (Kindness of Dr. J. F. Rinehart.)

dermis is not involved except for reddening in the acute stage. On completion of the process, the skin appears to be entirely normal. In Brill's case there was fever, and a general distribution of the lumps on the thighs, trunk, and arms. The spleen was enlarged, in distinction to the preceding five cases where no enlargement was noted. Leukopenia and a relative lymphocytosis were present. Sternal puncture showed no abnormality of the bone marrow. Blood serum was negative for agglutinins of *B. typhosus*, *B. paratyphosus* A and B, and for *Brucella*. Tests of the blood revealed the following: sugar, 106 milligram per cent; calcium, 10.9 milligram per cent; inorganic phosphorus, 4.2 milligram per cent; cholesterol, 230 milligram per cent. Wassermann and Kahn reactions were negative. Brill gives an excellent summary of the preceding five cases, all of which, like his own case, were in females. No casual bacteria were discovered in any, and the etiology remains quite unknown.

#### REPORT OF CASE

M. P., an American school teacher, age thirty, was first seen on May 10, 1933, when she complained of "swelling" in the calf of her left leg. In 1928 and 1929 she had three "swellings" about her thighs for several weeks. There was no fever nor other signs or symptoms at that time. Five weeks before she had three more "swellings" on her legs. Induration in one area beneath the right knee has persisted, and the site is very painful. A lymph node in the right inguinal region was painful, also, for a short time. The family history is unimportant. The patient was born in the Hawaiian Islands, and has resided in the Philippines, Mauritius, Japan, China, Belgium, France, the Malay Peninsula, and in California since 1922. There was no history of previous illness except malaria, in 1916, and a ruptured appendix, which was removed in 1921. Febrile periods occurred in 1916 and 1920 in the Philippines and in 1921 in France, at which times no diagnoses were made. Her habits are regular. The past history otherwise is irrelevant.

When the patient was examined in 1929, a small subcutaneous mass was observed on the anterior surface of the left thigh. The area felt hard, was not discolored and the skin over the site was fixed. When first observed by the patient in the fall of 1928 the mass was about two centimeters in diameter, and in one month reached its maximum size of 10 centimeters. In April, 1929, the second "lump" appeared, and shortly thereafter the third indurated area developed. Her physical examination then, and again in 1933, was not abnormal, except for these subcutaneous masses.

In 1933 the single area, measuring 7.5 by 20 centimeters, in the left lower leg was red to purple in color, firm to touch, and slightly tender. No lymph nodes were palpated or tender, but there was slight general edema of the right leg. Her temperature on May 10, 1933, was 99 degrees Fahrenheit at 4 p. m. Twenty days later the area was reduced to approximately one-fourth its former size, and was not indurated, and eventually the discoloration disappeared entirely. She was free from recurrence to De-

cember, 1936, when a subcutaneous mass developed again in the right thigh. Reexamination at this time revealed three small masses in the left hip, and the larger one already mentioned, in the right thigh. By May 7, 1937, all signs and symptoms had disappeared completely.

**Clinical and Pathologic Studies.**—Clinical and pathologic studies were made during this period. In April, 1929, there were 6,600 white cells per cubic millimeter with 68 per cent neutrophils, 26 per cent small lymphocytes, 3 per cent large lymphocytes, and 3 per cent eosinophils. The complement-fixation reaction for syphilis was negative. Serum agglutination tests for *B. tularensis* were negative. The sputum contained no acid-fast organisms. Roentgen examination of the chest was negative. No microfilariae were seen in blood samples taken throughout a twenty-four-hour period. A section of infiltrated fatty tissue was removed for pathologic study. There was a fine connective tissue stroma with numerous minute pale foci, and in one area the tissue was quite firm and appeared darker. No worms were seen. On microscopic study there was observed marked infiltration of the fat and fascia by lymphocytes, endothelial or epithelial cells with tubercle formation. Lanthan's and "foreign-body" type giant cells were seen, and also some occlusion of the capillaries due to endothelial hyperplasia was observed. No parasites were found. The diagnosis of fat necrosis, possibly traumatic, was made and was concurred in by Dr. William Ophüls.

In May, 1933, there were 4,200,000 red cells per cubic millimeter, hemoglobin was 80 per cent (Sahli), and there were 8,500 white cells with 62 per cent neutrophils, 36 per cent small lymphocytes, and one per cent, each of monocytes and eosinophils. The urine test was normal. No filarial organisms were demonstrated in blood samples taken hourly over twenty-four hours. Roentgen examination of the soft tissues of both legs failed to demonstrate any calcifications. A biopsy of the affected fatty tissue at this time showed no gross pathologic changes. Microscopic examination by Dr. Zera Bolin revealed cells in the stroma of the fat which appeared to be lymphocytes and large mononuclears. A few monocytes were seen also. There was a slight proliferation of fibrous tissue. Neutrophils constituted 10 per cent of the white cells seen. Hyperplasia of the endothelium of one arteriole was observed. No bacteria were demonstrated, and cultures of the tissues were negative. No eosinophils were seen. The pathologic diagnosis of inflammation in the subcutaneous fat with slight endothelial hyperplasia was made at this time.

In March, 1937, there were 4,310,000 red cells per cubic millimeter, with 90 per cent hemoglobin (Sahli), and 8,080 white cells with 55 per cent neutrophils, 41 per cent lymphocytes, 3 per cent monocytes, and 1 per cent eosinophils. The blood clotted in three and one-half minutes and a normal control sample clotted in four minutes. There were 240,000 platelets per cubic millimeter of blood. Kolmer and Kahn tests were negative. The blood cevitamic acid was 3.4 milligram per cent. A Frei test was negative. The urine examination was normal. The Mantoux test was negative. Agglutination tests for *Brucella abortus* were negative. An autohemetic test, to determine if rheumatic-like nodules would develop on intradermal injection of the patient's blood, was negative. A piece of indurated fatty tissue was removed again and subjected to pathologic study. On microscopic examination, Dr. James F. Rinehart described, in the reticular stroma of the fat, a number of inflammatory cells, chiefly mononuclear, but including a moderate number of polynuclear cells. Fibrinous thrombi appeared occasionally in some of the small capillaries.

Bacteriologic study of the removed tissue revealed no bacteria on Gram stain or acid-fast stain, and no fungi. Cultures of the tissue were negative, also.

**Diagnosis.**—A pathologic diagnosis of panniculitis was made.

**Subsequent Course.**—Since the patient was last seen in April, 1937, she reported on June 13, 1937, that she had observed a new "lump" in her left thigh. It was not painful. At the suggestion of Dr. Herbert C. Moffitt, she was advised to have roentgen-ray therapy applied to this area, and following this the mass did not disappear. She has had no other specific or general therapy except that she was advised to develop a "sun tan" and to eat larger amounts of meat and vitamin-containing foods, since her diet was deficient in these factors.

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### DISSEMINATED COCCIDIOIDAL GRANULOMA\*

By JULIUS ZELMAN, M.D.  
San Bernardino

THE following case is presented because of the various lesions which the coccidioid granuloma manifested. The patient was sent to this institution, diagnosed C. N. S. syphilis, with a tentative diagnosis of coccidioid meningitis.

Here coccidioid infection of skin, lung, and C. N. S. was diagnosed and confirmed by autopsy. The inquest also brought to light the gross involvement of the adrenals, prostate, seminal vesicles, kidneys, spleen, and liver.

Illustrations of the skin lesions and adrenal are presented.

(I am indebted to Max Cutler of Loma Linda for aid in pathologic studies.)

#### REPORT OF CASE

Male, born January 20, 1901, in Forrest Hill, Louisiana; in California five months; from Phoenix, Arizona, where he lived for the past five years; eighth-grade education; poor financial condition; urban environment; no drugs; temperate alcohol; Protestant; has not worked for the past year; occupation, laborer; race, Spanish.

Committed to the State Hospital because of increasing periods of confusion and disorientation; memory impaired; sleep is disturbed by pain in the head; coccidioides.

**San Diego County Hospital History.**—History given by San Diego County Hospital prior to entry here:

\* From the Psychiatric Service of Frank Fay Williams, Jr., M.D., Patton State Hospital, Patton.

The patient was admitted to the Main Hospital on February 18, 1937. His chief complaint on admission was pain over the right frontotemporal region (two weeks) and pain in the legs, starting mid-thigh and radiating to the feet (five days); aggravation at night. Had chancre in 1931, with nine months' treatment at one time and eleven months' treatment following a year of intermission. Has had a slow, wobbly gait for one year, and much worse in the past week. His gait was tabetic in type. He had skin lesions diagnosed prior to admission as blastomycosis. Wassermanns were negative.

#### Laboratory Findings at San Diego

February 18—Urine negative, except mic. Pus, xx.

February 20—Spinal fluid. White blood cells, 86; globulin, 3 x. Sugar, normal. Wassermann, positive. Colloidal gold curve, 3-3-4-4-4-4-3-2-1-0.

February 22—White blood cells, 11,050; hemoglobin, 85 per cent. Differential. Polymorphonuclears, 77 per cent. Lymphocytes, 20 per cent. Large mononuclears, 3 per cent.

X-ray of skull on February 20, 1937, showed calcification in the choroid plexi and pineal, without other evidence of intracranial calcification. No x-ray evidence of increased intracranial pressure, and no evidence of a destructive process of the cranial vault. The sella turcica was normal.

February 24—Blood: Precipitin test (Kline), negative.

March 1—Smear from gums, positive; fusiform bacilli, 2 x; spirilla, 2 x.

March 2—Scrapings from skin lesions; fungus coccidioides demonstrated on a direct examination of scrapings. Organisms present in intra-epithelial abscesses.

March 1—X-ray films of sinuses show no evidence of sinusitis.

March 23—Spinal fluid. White blood cells, 35. Globulin, 4 x. Wassermann, positive. Colloidal gold curve, 5-5-5-5-5-4-4-4-3-3.

April 6—Urine negative, except for red blood cells and pus cells in sediment (minor numbers).

April 7—Blood Wassermann was negative.

April 8—Urine was negative for pathologic findings.

**Course.**—History prior to admission to San Diego.

Blastomycosis of face and few other patches treated with x-ray and iodides for the past three months, with good results.

Wassermann: 4 x, 1930; 0, 1931; 4 x, 1934; 4 x, 1937.

February 19—Daily spinal drainage. Spinal-fluid pressure, 240 mm. Daily spinal puncture done until February 26, 1937. Spinal-fluid pressure registered 110 mm.

April 1—The patient developed restless irrational attack, requiring restraint.

April 6—Frequent lapses of memory, some hallucinatory experiences and disorientation. Transferred to psychopathic.

Treatment: Sodium iodid; thiobismol.

Tentative diagnosis of coccidioid meningitis made, with bad prognosis.

Laboratory findings indicated C. N. S. lues.

**Physical Examination at Patton.**—The patient was received at this hospital in a weakened physical condition, emaciated, showing evidence of recent weight loss; his temperature was 102.4; pulse, 100; respiratory rate, 24. Height, 5 feet 7 inches. Weight, 120 pounds.

Examination revealed: Lesion on upper left lip, round, elevated crusted edge, reddened center, clearing to periphery where crusts begin. Size, 3 x 2 centimeters. Left shoulder—two lesions, one from deltoid area, extending down posterior arm, scar tissue 5 x 3 centimeters with raised, crusted area 2 x 2 centimeters; the other a punched-out ulcer in appearance, 1 x 2 centimeters. Lesion on right elbow ovoid in shape, clearing center, pinkish hue with small elevated crusts at periphery. Skin showed a sub-icteric tint. Lungs clear to physical signs. Heart rate was rapid, enlarged to the left; snappy A-2; tambouric quality. Pulse was 102. Blood pressure was 120/80/40. Chancre scars on penis.

Neuromuscular examination: No tremor of fingers. Romberg was negative. Test phrases, hesitancy. Knee jerk



Fig. 1.—Photograph of lesion on left shoulder.

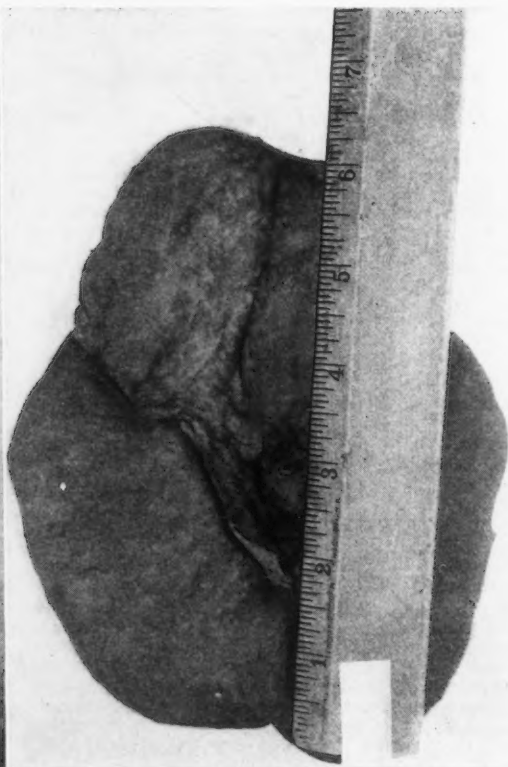


Fig. 2.—Photograph of one kidney and adrenal to show size of adrenal.

on left, active; on right, hyperactive. Positive Kernig; Brudzinski Babinski bilateral, positive. Smell, negative. Pupils irregular, equal; react sluggishly. Hearing, negative. Fine tremor of tongue.

*Laboratory Findings at Patton*

Hematology.—White count, 15,900; red count, 4,830,000; hemoglobin, 86 per cent; 12.5 grams; polymorphonuclears, 67 per cent; eosinophils, 17 per cent; basophils, 1 per cent; total, 85 per cent; lymphocytes, 9 per cent; transitionals, 6 per cent.

Urinalysis.—Specific gravity, 1.007; albumin trace, sugar negative; no casts. White blood cells, 14-16; Red blood cells, 0-1. Urethral and bladder epithelium, 1-2; no bacteria.

Spinal Wassermann.—Negative. Globulin, four plus; cell count, 396. Colloidal gold curve, 5-5-5-5-5-5-4-3-2-0.

Guinea-pig inoculation of spinal fluid was positive for coccidioides.

Blood Wassermann.—Doubtful. Kahn test was negative.

Biopsy Report.—Coccidioidal granuloma.

X-Ray Report.—X-ray of the chest showed the heart normal size; increased peribronchial marking on the right; a uniformly distributed mottling throughout all lobes of the lung. With a history of coccidioidal granuloma skin lesion, the question arises whether this may be due to the coccidioides. In the left upper chest, in the second and third interspaces, are calcified areas which may be original focus.

X-ray of Bones.—Femur, tibia, humerus, and skull were negative.

Course.—The patient failed rapidly; marked weakness, dizziness and dyspnea. The patient was unconscious during the last few hours.

Autopsy.—External Examination.—Body was that of a rather undernourished white male, appearing about forty

years of age. There were crusted rough surfaced lesions in the skin of the left side of the upper lip and the lateral surface of the right forearm. Some scarring of the skin was present in the area of these lesions, especially on the left arm. There has been a surgical excision of the lesion on the right forearm. No jaundice or edema was present.

Internal Examination.—Head: Scalp, skull cap, and dura were normal. The leptomeninges showed some opacity along the blood vessels throughout. There was considerable scarring as well as exudate in the meninges about the brain stem.

Thorax: Pericardium was completely adherent to the heart by moderately dense fibrous adhesions. The heart weighed about 325 grams. The various valves were normal, with the exception that there was moderate scarring of the margins of the mitral cusps. The cusps were not narrowed, however. The coronary arteries were normal. The aorta contained only tiny yellow spots in the intima.

The pleural cavities presented adhesions posteriorly and at apices on both sides. Lungs showed some generalized edema and congestion; both lungs contained extremely numerous minute tubercles. In the apex of the right lung there was some scarring and an encapsulated caseous area one centimeter in diameter.

Abdomen.—Peritoneum was normal. Esophagus, stomach, intestines, and pancreas were normal.

The liver weighed about 1,750 grams, and was studded throughout with very minute tubercles. There was an area seven centimeters in greatest diameter, on the undersurface of the right lobe in which the tubercles were extremely numerous and confluent.

The spleen weighed about 175 grams. The capsule was moderately thickened. The pulp contained extremely numerous, unevenly scattered tubercles.

The adrenals were enormously enlarged, each having a greatest diameter of 8 centimeters and a thickness of 2.7 centimeters. Very little recognizable adrenal tissue was

present. The cut surface showed a mixture of caseous and fibrous areas.

The kidneys weighed about 380 grams together, and were studded with tiny tubercles.

The pelves, ureters and urinary bladder were normal. The latter contained about 500 cubic centimeters of clear urine.

The prostate was of normal size. Right lobe contained abscessed areas. The left seminal vesicle was normal. The right was scarred, and in scar tissue there were many caseous areas.

The lymph nodes in mediastinum and in the upper abdomen, along the aorta, were enlarged and contained caseous areas.

*Microscopic Examination of Above Tissues.*—Examination revealed the spherules of fungus coccidioides.

*Diagnosis.*—Coccidioidal granuloma of lungs, meninges, spleen, kidneys, adrenals, lymph nodes, prostate, seminal vesicle, and skin.

San Bernardino County Charity Hospital.

## SUBCUTANEOUS EMPHYSEMA IN ASTHMA\*

### REPORT OF TWO CASES

By HARRY F. DIETRICH, M.D.

Beverly Hills

WHILE subcutaneous emphysema is only occasionally encountered in infants and children, a wide variety of etiologic agents have been recognized. Except for the occurrence of such emphysema during labor in adults,<sup>1</sup> and the so-called "spontaneous" mediastinal and subcutaneous emphysema in the new-born,<sup>2</sup> the same etiologic factors have been noted in children and adults. Trauma,<sup>3</sup> bronchopneumonia,<sup>4</sup> tuberculosis,<sup>5</sup> measles,<sup>6</sup> laryngeal diphtheria,<sup>7</sup> tension pneumothorax,<sup>8</sup> therapeutic pneumothorax,<sup>9</sup> aspirated foreign bodies,<sup>10</sup> and tonsillectomy,<sup>11</sup> have all been implicated. To this list should be added the pulmotor, the too zealous use of which in attempts to resuscitate new-born infants has resulted in numerous cases of emphysema of the soft tissues due to rupture of the lung. Sheldon and Robinson<sup>12</sup> have recently collected nine cases of subcutaneous emphysema secondary to asthma, and have added one of their own. We have been unable to find additional cases in the literature, but feel that the reports of two cases which came under our observation would be of interest.

### REPORT OF CASES

**CASE 1.**—The patient was a five-year-old white female child who was admitted to the ward because of marked respiratory difficulty. At about two and one-half years of age the youngster had her first typical asthmatic attack, and thereafter attacks occurred at fairly frequent intervals. She was known to be sensitive to a large number of inhalants and numerous foods. Many of the attacks were preceded by obvious upper respiratory infections. Except for the history of allergy, the past and family histories contributed nothing relevant to the present illness.

Four days prior to admission the child became feverish, developed some nasal discharge, complained of sore throat, and began to cough. Three days before entry the child vomited her breakfast; during the ensuing twenty-four hours she vomited and retched almost incessantly, and

complained of para-umbilical pain. Respirations grew difficult and wheezing in character, and during the day previous to admission dyspnea became the chief complaint.

*Physical Examination.*—Temperature was 102 degrees; pulse, 150; respiration, 38. Examination showed a well-developed and nourished, dehydrated, flushed child in considerable respiratory distress. Respiration was audible and wheezing. Palpation revealed extensive subcutaneous crepitation over the neck, shoulders, and in the axillae and subclavicular regions. Showers of fine crackles were heard when the stethoscope was applied over the affected areas. The eyes and ears were negative. The throat and tonsils were red and boggy. Slight cervical adenopathy was present. The heart was negative. The lung fields were resonant throughout, but over most of the chest normal breath sounds were replaced by multitudinous sibilant and musical râles. Definite prolongation of the expiratory phase of the breath sounds was evident. The abdomen, extremities, genitalia, and reflexes were negative.

*Laboratory Examination.*—The urine on entry showed acetone, albumin, and rare casts, but after reparation of the child's dehydration, specimens were normal. Hemoglobin was 90 per cent (Sahli); red blood cells, 5,930,000; and white blood cells, 13,050 with 84 per cent polymorphonuclear leukocytes. Tuberculin (0.1 milligram) test was negative. X-rays of the chest showed extensive subcutaneous and mediastinal emphysema, and parenchymal changes in the lungs consistent with chronic asthma. There was no pneumothorax.

*Course.*—Six minims of adrenalin hydrochlorid (1:1000) gave considerable relief from the dyspnea, and sodium amytal, grains two by rectum, provided adequate sedation. The youngster took and retained frequent small amounts of sweetened fluids, and by the third day the temperature dropped to normal and a soft diet was tolerated. By the sixth day no evidence of the subcutaneous emphysema remained and the patient was discharged well on the eleventh day.

*Diagnoses on Discharge.*—(1) Acute upper respiratory infection; (2) Acute asthmatic bronchitis; (3) Subcutaneous and mediastinal emphysema; and (4) Hypertrophied tonsils and adenoids.

**CASE 2.**—This 7½-year-old child was admitted to the ward for the fifth time because of a severe asthmatic attack. The child's first attack occurred at the age of two years, and in the ensuing years the attacks were repeated with increasing frequency and severity. Five different times in various clinics a diagnosis of bronchopneumonia was made during particularly severe attacks, and our presumption was (in retrospect) that these episodes probably represented the picture that has been described as "allergic bronchopneumonia."<sup>13</sup> Although many of the youngster's attacks were preceded or accompanied by a definite upper respiratory infection, the child was found to be sensitive to a large number of foods, pollens, and animal emanations. There was no family history of allergy.

On the day before entry the patient showed signs of an upper respiratory infection, and by evening he was wheezing. The following morning his respiratory distress was increased. Adrenaline and ephedrin sulphate at home gave no relief. During the afternoon the boy developed a severe and persistent pain under his left scapula, and that evening he was admitted to the hospital because of the pain and marked respiratory distress.

*Physical Examination.*—Temperature was 99 degrees; pulse, 120; respiration, 42. Examination showed a fairly well-developed and nourished, acutely ill, perspiring, apprehensive boy with a restrained, shallow, nonproductive cough. Respiration was rapid, labored, and accompanied by both inspiratory and expiratory wheezes. There was suprasternal and subcostal inspiratory retraction. The eyes and ears were negative. Considerable injection and a purulent posterior pharyngeal drip were seen in the throat. Moderate cervical adenopathy was present. Except for an area of questionable dullness in the left mid-back, the lungs were clear on percussion. Auscultation revealed myriads of loud moist and musical râles throughout both lung fields. In scattered patches near the vertebral column breath sounds were rather bronchial in

\* From the medical service of the Children's Hospital, Los Angeles, and the department of pediatrics of the University of Southern California Medical School.

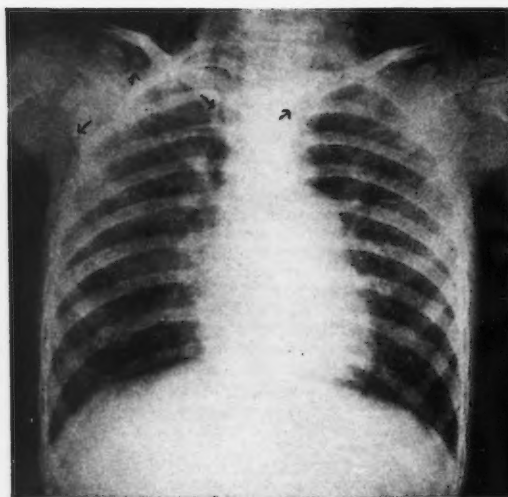


Fig. 1.—Anteroposterior film, showing the extensive subcutaneous emphysema in Case 1.

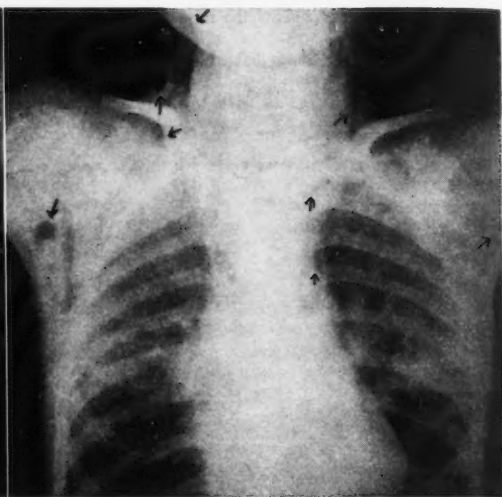


Fig. 2.—X-ray of chest in Case 2, showing subcutaneous and mediastinal emphysema.

character. The heart, abdomen, genitalia, extremities, and reflexes were negative.

**Laboratory Examination.**—Repeated urine examinations were negative. Hemoglobin was 90 per cent (Sahli); red blood cells, 4,820,000; white blood cells, 16,950 with 77 per cent polymorphonuclear leukocytes. Wassermann and tuberculin (0.1 milligram) tests were negative.

**Course.**—Adrenalin, minims four, and morphin sulphate, grains one-twelfth, subcutaneously on admission, effected considerable symptomatic relief, but had to be repeated on several occasions. On the next day the temperature rose to 101 degrees, and all symptoms, though they were attenuated, persisted. On the second day after admission the child's temperature rose to 103 degrees; and although examination revealed little change in the chest findings, extensive subcutaneous emphysema of the neck, axillae, and upper thorax anteriorly were demonstrated. There was no increase in respiratory distress. X-rays at this time disclosed subcutaneous air, and showed fairly dense infiltration extending out from both lung roots. There was no pneumothorax, but large collections of air in the mediastinum were seen. In the ensuing week the chest findings and the subcutaneous emphysema disappeared, and the temperature returned to normal. The child was discharged well two weeks after entry.

**Diagnoses on Discharge.**—(1) Acute upper respiratory infection; (2) Asthmatic bronchitis; (3) Allergic bronchopneumonia; and (4) Subcutaneous and mediastinal emphysema.

#### COMMENT

Sheldon and Robinson<sup>12</sup> have suggested that even in asthma there must be some factor other than the respiratory effort which finally causes the rupture of a distended alveolus, and in the first case cited in our report we feel that the intractable vomiting may have been that factor. The immediate cause of the emphysema in the second case is not so clear. Either augmented pressure due to coughing, or a structural weakness due to recurrent and chronic infection may have played a part. It may at first seem unusual that the appearance of this complication is not accompanied by an increase in respiratory distress (second case), for mediastinal emphysema alone can threaten, or take life. Ballon and Francis,<sup>14</sup> in their experimental work, have shown that at least one of the effects of increased mediastinal pres-

sure is interference with the venous return to the heart. However, if we adopt the viewpoint that the extension of emphysema from the mediastinum to the loose soft tissues of the neck and shoulders results in a virtual decompression of the mediastinum, then this extension might actually relieve extreme symptoms.

Although numerous writers have advised multiple incisions in the suprasternal region<sup>15</sup> for relief of emphysema in this area, the lack of mortality when the condition is secondary to asthma<sup>12</sup> must indicate a more conservative attitude. Apparently, in the absence of frank infection such as bronchopneumonia or tuberculosis, the alveolar defect tends to close spontaneously and rapidly. From a therapeutic standpoint the most important factor is to minimize coughing, vomiting, and straining, and to this end the barbiturates or morphia, in combination with adrenal and ephedrin, would seem indicated in full doses. The definite dangers of coughing are suggested by the work of Novak and Churchill,<sup>16</sup> who found, in studying the intrathoracic pressure in tension pneumothorax, that coughing results in elevations of pressure five or six times higher than those produced by even very forceful respiration.

#### SUMMARY

Two cases of subcutaneous emphysema occurring during asthmatic attacks are reported. These cases, the youngest on record, bring the total number of cases to twelve. No deaths are recorded.

Beverly Hills Professional Building.

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### THROMBOSIS OF THE CAVERNOUS SINUS\*

By J. TERRELL SCOTT, M.D.  
San Diego

**T**HROMBOSIS of the cavernous sinus is one of the more serious of intracranial complications, fortunately infrequently seen. The grave prognosis which these cases carry is due to the inaccessibility of the cavernous sinus for removal of the clot by surgical means, the rapid course after infection has occurred, and the reluctance of the family to consent to a mutilating operation. The mortality is very high, although it is claimed that spontaneous recovery occurs more frequently than with lateral sinus thrombosis.

The two cases reported are peculiar in that they both occurred from an insignificant surface infection of the face, both in adults in the thirties, who entered the hospital four days apart, and died within twenty-four hours of each other, after nine and ten days of illness.

\*Read at the staff meeting of the San Diego County Hospital, March 23, 1937.

### ANATOMIC CONSIDERATIONS

The paired cavernous sinuses are approximately 3 by 2 centimeters when distended and are traversed by numerous small trabeculae, some hanging freely in the blood stream. Situated on either side of the stalk of the hypophysis, they communicate with each other by the two circular sinuses anteriorly, and by the basilar sinus posteriorly. By means of this lateral communication, and through the flow of the venous blood traversing it in either direction (*i. e.*, intracranially or extracranially), an equalization of the venous pressure in the base of the brain is maintained at all times. The abducens nerve traverses the cavernous sinus, and the third and fourth nerves, and the ophthalmic and maxillary divisions of the fifth nerve are embedded in the dura forming the lateral wall.

The cavernous sinus receives blood from the superior and inferior ophthalmic veins which, in turn, through the facial veins, receive the blood from the anterior portion of the scalp, the face and nasal cavity as far down as the line of the mouth. From the face and nasal cavities blood may pass upward into the ophthalmic veins or downward into the external jugular.

### ETIOLOGY

We recall that the veins of the head are characterized by the absence of valves, permitting a flow in either direction; and by reason of these communications we find cavernous sinus thrombosis and meningitis occurring after surface infections of the upper lip, cheek, nose or forehead, from cancrum oris, and from acute exacerbations of chronic infections of the nasal accessory sinuses.

### SYMPTOMS

Thrombosis of the cavernous sinus has been studied extensively by Macewen and, according to him, there are two groups of symptoms: the symptoms caused by the obstruction to the flow of blood through the sinuses, such as edema of the lids and exophthalmus; and, secondly, the nervous manifestations caused by pressure, such as paralysis of the abducens, trochlear or oculomotor nerves, and failing vision from choked disks.

In more than half of the cases the process extends to the sinus of the opposite side; and a similar course of symptoms soon appears upon the other side. This, together with the history, is pathognomonic and distinguishes cavernous sinus thrombosis from abscess of the orbit.

### TREATMENT

Treatment of cavernous sinus thrombosis is usually expectant and symptomatic. Often the diagnosis is made after extension to the other side has occurred, when operation is inadvisable. No surgical technique has given sufficiently favorable results to warrant its being generally followed, owing to anatomic considerations. Doctor Ballance, in his "Surgery of the Temporal Bone," recommends approaching the sinus from the side, by making an osteoplastic flap through the temporal bone, tying off the middle meningeal artery, and lifting up the temporal lobe.

Dr. H. P. Mosher has recommended an approach through the orbit which merits consideration, since the approach is easier. The difficulty is that the eye must be sacrificed, inasmuch as the orbit is completely exenterated. The approach is through the orbital portion of the great wing of the sphenoid external to the optic foramen. The internal jugular is tied. Through the incision a small curette is introduced, and the contents evacuated by suction.

#### CONCLUSIONS

The danger of opening prematurely or bruising any furuncle or abscess of the face should be emphasized. Infections in these locations should be handled most conservatively. Hot and cold compresses should be used at first, and no incision made until a localized immunity and pointing or fluctuation has occurred.

#### REPORT OF CASES

Case 60932. White laborer. Age, 30. Entered San Diego County Hospital on August 4, 1934.

*Complaint.*—Swelling and tenderness of nose and upper lip; fever and headache.

*Present Illness.*—Began three days ago after pulling a hair from an infected hair follicle in left vestibule of nose. The nose and lip became swollen and tender the next day. The patient noticed pain in right chest, and headache the next night.

*Examination.*—Tip of nose, left naris and lip red, hot, swollen, and tender. Left upper jaw indurated. Breathing was labored. Right chest: Slight dullness in front, extending to the fourth interspace and to sternum. No râles and no friction rub heard. Inspiration limited by sharp pain across chest on both sides. Also pain in lower lumbar region. Respiration, 25; pulse, 90; temperature, 103.4 degrees. The patient looked ill.

*Provision Diagnosis.*—Cellulitis of face.

*Laboratory Findings.*—Urine was negative throughout illness. Blood on second day: White blood count, 14,600; neutrophils, 83 per cent. On the fourth day the blood culture (forty-eight hours) was positive to streptococci.

*Treatment.*—Given hot magnesium sulphate packs continuously to face. Restlessness controlled with morphin and phenobarbital. Fluids forced by mouth and enemata. Fifteen hundred cubic centimeters saline were given by hypodermoclysis. Three hundred cubic centimeters of glucose (25 per cent) were given twice, intravenously. The right eye was irrigated with boric-acid solution every two or three hours. Argyrol solution was instilled; fifty cubic centimeters of hemolytic antistreptococcus serum (polyvalent) was given once.

*Progress.*—Second day (of admission): Temperature rising (104 degrees). Increased swelling. Right eye closed. Third day: Moaning, with pain in head. Temperature, 104 degrees. Fourth day: Temperature, 105 degrees (rectal). Fifty cubic centimeters hemolytic antistreptococcus serum given. Choked disk beginning. Fifth day: Temperature one degree lower. Pulse, 115. Pain in abdomen. Nausea. Sixth day: Temperature lower (103 degrees). Pulse, 100. Irrational. Right eye tightly closed. Strabismus. Pupils sluggish. Seventh day: Temperature rapidly rose to 106.4 (rectal). Pulse, 160. Cheynes-Stokes respirations. The patient expired during the night.

#### COMMENTS

This patient's illness was a fulminating type, lasting only ten days and terminating fatally after removing a hair from a sore spot in the right nostril—an apparently harmless procedure. Pain in chest and lumbar region occurred early, probably from a bronchopneumonia. The right eye became edematous, and blood culture was positive

on the fifth day. Death was due to an early streptococcal septicemia with thrombosis of the cavernous sinus, and meningitis.

\* \* \*

Case 61026. White female. Age, 34. Entered San Diego County Hospital, August 8, 1934.

*Complaint.*—Both eyes tightly closed. Irrational. Severe headache.

*Present Illness.*—Began five days ago when patient squeezed a small pimple on bridge of nose, followed by pain and increased swelling. This was incised two days ago, with escape of blood. Since then both eyes have become swollen, tender, and headache has developed.

*Examination.*—Well-nourished female. Nose red, hot, swollen, and tender. Small indurated area over bridge of nose. Both eyes tightly closed. Conjunctiva protruding from right eye. Moderate exophthalmus. Pupils small and unequal; react to light. Blood pressure 90 systolic, 50 diastolic. Respiration, 28. Pulse 100, irregular. Temperature, 105.2 (rectal). Semi-conscious. Reflexes hypoaactive. Both eyes turned upward when lids are opened, and cornea cloudy.

*Diagnosis.*—Cavernous sinus thrombosis.

*Laboratory Findings.*—Urine: Albumin four plus. Acetone three plus, granular casts. Blood culture: Positive staphylococcus (second day). Kline precipitation test: Negative.

*Treatment.*—Fifty cubic centimeters of hemolytic polyvalent antistreptococcus serum were given on admission. Ice-bag to head and axillae, and sponge baths. Morphin, one-eighth grain, as needed. Fluids forced. Saline by hypodermoclysis, 1,000 cubic centimeters. Glucose (10 per cent) 750 cubic centimeters given, intravenously, twice. Eyes were sponged with boric acid solution and 5 per cent boric acid ointment instilled twice daily. Lister's mouth wash.

*Progress.*—Second day: Improved. Temperature declined to 100 degrees. Pulse, 80. Third day: Lethargic. Respiration and pulse rose. Temperature, 105.6 (rectal). Fourth day: Involuntary defecation and urination. Pulse feeble, 130. Temperature, 105 (rectal). Fifth day: Temperature rose to 106 degrees (rectal). The patient expired.

*Autopsy.*—Performed by Dr. Howard A. Ball, who reported as follows: "Both lungs partially adherent to the pleura. Lower half of left lobe presented several small septic infarcts and a consequent fibrinous pleuritis. Heart presented no valvular defects, but the pericardial sac was involved with infection and fibrinous reaction. The liver was negative. Spleen not enlarged. Both kidneys showed numerous small septic infarcts. Those in the cortex were more hemorrhagic. The brain presented a purulent meningitis, involving the entire basilar surface, the exudate being fairly thick, probably of four or five days' standing. The dura in the region of the sella turcica showed evidence of purulent infection. The bone also appeared to be involved. There was a thrombosis of the cavernous sinus on the left side. Contributory cause of death: Bacteremia and fibrinous pericarditis."

#### COMMENTS

This case also terminated fatally with a stormy illness, lasting only nine days from onset. The initial cause was from the bruising and premature incision of a small, innocent-looking furuncle on the bridge of the nose.

524 Bank of America Building.

*Lack of Protection in Antimeningococcus Serum.*—In studying the effect of antimeningococcus serums on meningitis in both rabbits and guinea pigs, Branham and Pabst found that, although meningitis was easily produced in these animals, they were not protected to any appreciable degree by the serums when these were administered intracranially, intraperitoneally or intravenously. Some of the experiments have suggested that with more perfect methods of concentrating the serums better protection may be obtained.—United States Public Health Reports.

# BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

## DYSENTERY

### I. ETIOLOGY

JOHN F. KESSEL (Professor of Bacteriology, University of Southern California Medical School, Los Angeles).—Dysentery is usually differentiated clinically from diarrhea by the presence of blood and mucus in the discharged stool. No strict line of demarcation can be drawn, however, between the etiology of these conditions, since the same microorganism may cause diarrhea in one person and dysentery in another, or diarrhea at one time and dysentery at another, in the same individual.

Acute gastro-intestinal disturbances, with accompanying diarrheic symptoms, often occur as a result of food idiosyncrasies or of food or chemical poisoning. *Bacitidium coli*, a ciliate, *Isospora hominis*, a coccidium, and *Strongyloides stercoralis*, a nematode, also cause dysentery, but the present discussion will be limited to a consideration of amebic and bacillary dysentery, which are both common in California.

Until recent years the term "tropical dysentery" was used commonly to indicate dysentery occurring either in endemic or epidemic form as found in the tropics. It is probable that epidemics were of the bacillary type, while sporadic cases were amebic in nature. It is now common knowledge that both types occur in temperate regions as well as in the tropics, and that sanitation is a factor at least fully as important as climate in the epidemiology of dysentery.

In California both amebic and bacillary dysentery occur endemically, and frequent minor epidemics of the bacillary type occur from time to time. In Southern California, at least, the bacillary type is encountered much more frequently than the amebic.

The two types may be differentiated clinically and by laboratory examination of the stool. Bacillary dysentery usually exhibits an acute onset with high temperature, often accompanied by marked toxic symptoms, while amebic dysentery usually occurs without these manifestations. The stools from patients with acute amebic dysentery usually yield a fetid odor, gelatinous mucus and blood, and upon microscopic examination are found to harbor many actively motile *Endameba histolytica* containing red blood cells. As a rule there are few or no polymorphonuclear leukocytes though occasional macrophage cells are found. Charcot-Leyden crystals, when present, probably indicate an infection of long duration.

The stools from bacillary dysenteric cases differ from the amebic in lack of odor, in the presence of flecks of blood and mucoid pus, rather than clumps of gelatinous mucus. The flecks of pus and mucus are composed mainly of polymorphonuclear leukocytes, with occasional macrophages often partially degenerative. These large cells, which frequently contain inclusions simulating red blood

corpuscles, are often called *E. histolytica* by the inexperienced.

Stools, however, do not always show a typical cellular exudate, since this picture may be obscured by the presence of a certain amount of fecal material. Further, the stools from cases of bacillary dysentery of several days' duration may fail to exhibit the characteristic picture. In such instances, it is necessary to resort to laboratory culture methods in order to determine the type of infection.

Bacteriologic culture of the stools from dysenteric cases, in addition to microscopic examination, should be made a routine in order to rule out mixed bacillary and amebic infection, and also to determine the type of bacillary dysentery responsible for a given case.

Bacillary dysentery is caused by the following main types or species of dysenteric bacteria:

1. *Shigella dysenteriae* (Shiga type).—This species was first discovered by Shiga in Japan in 1898, and is differentiated from the more common types by its failure to ferment mannitol, and by the fact that, in addition to the enterotoxin, it produces a neurotoxin which is an exotoxin by nature. It is the most severe of all the bacillary dysenteric type. Fortunately for us, this species is rare in California, only having been encountered thirty-eight times in six years in the Los Angeles County Hospital. In this one species, at least, antiserum therapy is indicated.

2. *Shigella paradysenteriae* (Flexner type).—This species was first discovered by Flexner in 1900 in the Philippine Islands, and is the most common of the dysenteric bacteria. It is most frequently the etiologic agent of bacillary dysentery in California, having been found in Southern California thirty-five times more often than the Shiga type. This variety has been subdivided into five subtypes, designated as V, W, X, Y, and Z, which can be differentiated from each other by agglutination absorption tests.

3. *Shigella paradysenteriae* (Sonné variety).—This variety is differentiated from the Shiga and Flexner varieties by the slow fermentation of lactose, and by the distinct agglutinin which it produces. First reported in the United States by Duval in 1904 and later by Sonné in Denmark, this organism has been found to be quite widespread in its distribution. Ordinarily, only occasional sporadic cases caused by this organism are encountered in California. In 1933-1934, however, a great many cases of bacillary dysentery caused by the Sonné type of dysentery bacterium occurred on the Pacific Coast. Sears et al.<sup>1</sup> (1935) reported an outbreak in Portland, Oregon, and Kessel et al.<sup>2</sup>

<sup>1</sup> Sears, Harry J., et al.: An Outbreak of Dysentery Caused by the Sonné Type Bacillus. *Northwest Med.*, 34:37. 1935.

<sup>2</sup> Kessel, John F., Blakely, Lee and Cavell, Korine. Amebiasis and Bacillary Dysentery in the Los Angeles County Hospital, 1929-1935. *Am. J. Trop. Med.*, 16: 417. 1936.

(1935) reported a marked increase of this type in Los Angeles.

4. *Salmonella morgani*.—Members of the genus *Salmonella* are at times responsible for diarrhea or dysentery, differentiated from the *Shigella* type only by bacteriologic identification of the micro-organism associated with the infection. The most common member of the genus *Salmonella* which caused such symptoms in California is *Salmonella morgani*, the same being usually associated with the more mild types of infection.

\* \* \*

## II. SYMPTOMS

DONALD E. GRIGGS, M.D. (312 North Boyle Avenue, Los Angeles).—The term "dysentery" refers to a symptom complex of (1) frequent, small stools, containing mucus, or mucus and blood, (2) spasm and pain in the anal region (tenesmus), and (3) intestinal griping. Diarrhea, on the other hand, is characterized by large liquid stools containing little mucus and no blood, but much food debris. Diarrheas may be produced by the same organisms which produce dysentery. Tenesmus is most prominent in dysentery when the involvement is extensive near the rectum, while lesions in the upper end of the colon cause more intestinal griping but less tenesmus.

*Acute Dysentery*.—Bacillary dysentery is by far the most common type of acute dysentery. It is essentially an acute infectious, self-limited disease, though it may relapse or become chronic.

The onset, which occurs after an incubation period of from two to seven days, is usually sudden, with abdominal griping pain, followed by severe diarrhea. Occasionally, nausea and vomiting are present. The fever is variable, but usually of a moderate degree. The pulse is rapid, and the patient is usually flushed and toxic in appearance. Examination of the abdomen shows generalized tenderness. At first there is often rigidity. Later the spastic ileum or sigmoid flexure may be palpable through a lax abdominal wall.

During the first twenty-four to forty-eight hours the stools change from a diarrhea and become characteristic. They are small in amount, often only a few teaspoonfuls being passed at a time. This discharge is nearly odorless and consists principally of mucus which is often blood-stained, resembling currant jelly. The number of stools varies from ten to fifteen a day in mild cases; while in severe cases, as Manson says, the patient is "glued to the commode." The tenesmus due to rectal irritation in these cases is often extreme. Abdominal cramping pains, which center around the umbilicus, also cause much suffering. Later the stools become more purulent and contain less blood, then gradually assume a more fecal character. One to two weeks find most cases well on the road to recovery. The Shiga type of bacillary dysentery is more severe, of a longer duration, and has a greater tendency to relapse than other types.

Toxemia is often especially striking in cases occurring in infants and small children. The onset may be masked by vomiting, convulsions with high temperature, and signs of meningeal irritation. Death may even occur before the intestinal signs actually develop. Cases also occur in which the

temperature is low, with symptoms of collapse dominating the picture, while early abdominal signs are entirely absent. Dehydration markedly aggravates the toxic symptoms. Similar fulminating cases may also occur in adults. In some cases the typical dysentery stools are replaced by large serous stools with mucus, which resemble the rice-water stools of cholera. In these cases symptoms of collapse soon appear. Many cases proved bacteriologically to be bacillary dysentery do not present the severe symptoms described, but rather those of a diarrhea with considerable mucus in the stools. These mild cases even without treatment are often well in a few days.

Not all cases of acute dysentery are bacillary in origin. Cases of acute amebic dysentery with sudden onset, fever, intestinal griping, purging, and tenesmus occasionally occur. The stools are bloody, brown, and mucoid. These cases of acute amebic dysentery, with constitutional symptoms, are considered rare. However, during the Chicago epidemic many of this type were reported. Several patients had symptoms of an acute surgical abdominal condition and were operated upon.

The white blood count in acute bacillary dysentery may be moderately increased or may be within normal limits. In the acute or subacute cases of amebic dysentery the leukocytosis averages higher than in cases of bacillary dysentery.

*Chronic Dysentery*.—Amebic dysentery is characteristically a chronic disease with periods of improvement alternating with relapses. The incubation period is usually from three weeks to three months, but may be years. Frequently, diarrhea is more prominent than the dysentery syndrome. Fever, rapid pulse and other toxic symptoms are uncommon unless the liver is invaded. The abdominal pain and tenesmus, while often present, are less marked than in bacillary dysentery. The stools of amebic dysentery rarely exceed twelve to fifteen per day, and there may be only three or four. As these often contain blood from the cecum where the ulcerations are most extensive, they are apt to be dark-colored and have a foul odor due to the altered blood. From their color and consistency they are said to resemble anchovy sauce.

Even without treatment amebic dysentery has a tendency to improve temporarily. The general course, however, is downward, and anemia and loss of strength and weight are the rule. Occasionally there are cases with an apparent spontaneous cure which lasts for months, or even years. It should be remembered that most cases of amebic infection do not present the dysentery syndrome. The patient may suffer from a slight diarrhea, constipation or other vague gastro-intestinal symptoms. Often the symptoms are attributed to neurasthenia, psychoneurosis, or some other disease.

Two types of chronic bacillary dysentery occur, both of which are uncommon. In the first type the patient never completely recovers from the acute attack. The stools continue to contain mucus and blood. During exacerbations, fever is frequently present and the patient is usually miserable and emaciated. The second type has an insidious onset without a typical acute attack preceding it. Attacks of diarrhea with mucosanguinous stools occur followed by remissions and relapses. These

cases are clinically indistinguishable from idiopathic ulcerative colitis. Many authors believe that most cases of chronic ulcerative colitis are sequelae of bacillary dysentery with other infections superimposed. The symptoms of the less frequent types of dysentery, such as the Balantidial and Bilharzial, usually resemble those of amebic dysentery, though in the latter case other symptoms such as splenomegaly are present. It is important to remember that the dysentery syndrome may be produced by carcinoma of the colon. I remember a case referred to me with a laboratory report showing *Entameba histolytica* and typical symptoms of amebic dysentery. After two weeks' treatment, without improvement, I found that a large carcinoma of the rectosigmoid junction was the cause of the dysentery.

While in acute dysentery the proctoscopic appearance of the lesions should not be investigated due to pain and an aggravation of the symptoms, in chronic cases direct examination furnishes invaluable information. Amebic lesions are characteristic. Small, yellowish nodules or punched-out ulcers are surrounded by a red areola. The intervening mucosa is usually normal. As amebic lesions are more extensive in the cecum, a negative proctoscopic examination does not rule out this disease. Lesions of chronic bacillary dysentery show patches of granulation tissue which bleed easily. The intervening mucosa is inflamed. These lesions are often difficult to differentiate from chronic ulcerative colitis. There is usually spasticity and often stenosis of the bowel, which make introduction of the scope difficult and so painful that the pain in itself is almost diagnostic.

**Complications.**—Bacillary dysentery is frequently complicated by an acute arthritis, and occasionally by parotitis, iridocyclitis, or neuritis. In amebic dysentery, while perforation or hemorrhage may rarely occur, the most frequent complication is liver abscess. In the Los Angeles General Hospital, Kessel and his coworkers<sup>1</sup> found this complication in 9 per cent of 319 cases in which amebae were found, as compared with 25 per cent who presented symptoms of dysentery. It frequently occurs in latent cases without dysentery.

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### III. DIAGNOSIS

ALFRED C. REED, M. D. (350 Post Street, San Francisco).—By dysentery is meant increased frequency of bowel movements containing blood and mucus, and associated with more or less pain. Dysentery can best be considered clinically as acute or chronic. To objectify examination methods, it is easiest to consider the actual patient.

1. *Acute Dysentery.*—The patient first receives a meticulous general examination, with record of temperature, pulse and respiration, and routine examination of blood, urine, and Wassermann reaction. This will determine whether one is dealing with a primary colitis or with a dysentery secondary to some general condition. At the same time, fresh stool specimens are examined immediately after passage, and unstained. The familiar

differentiation of cellular inflammatory products is here made. In this connection, we recommend the article on "Differential Pathology of Dysentery" by G. R. Callender.<sup>1</sup> This first stool specimen should also be cultured on differential media (preferably E.-M. B.) for nonlactose fermenting bacilli. This culture must be made quickly.

Ordinarily proctoscopic examination should not be made in acute dysentery.

2. *Chronic Dysentery.*—The patient receives the same initial diagnostic study as for acute dysentery. In addition, a stool examination for protozoa is made daily for at least six days. The procedure for this is as follows. All stool specimens must be examined immediately after passage. Cold specimens should never be sent to the laboratory. A fresh unstained smear is examined first for cytology, food remnants, and motile parasites. Then a smear is mixed with saturated methylene blue in methyl alcohol. This will show with high dry lens if any protozoa are present. Kofoid's brine flotation test will exclude helminthic ova. A fresh, wet smear is also made as described by Reed and Johnstone<sup>2</sup> and, without drying, is fixed in Schaudinn's solution and stained with iron hematoxylin. This is the safest method of identification of amebas, and furnishes a permanent, vitally stained slide for later reference.

Sigmoidoscopic examination, preceded by digital examination of the lower rectum, should invariably be done. Specimens from ulcers should be taken with a camel's hair brush, or preferably a dull spoon curette. These scrapings are stained for amebae and cultured for both aerobes and anaerobes. Gastric analysis with alcohol test-meal is important.

Gastro-intestinal x-rays complete the study and should always include barium enema examination. The barium enema should never be preceded by a purge. The lower bowel is preferably cleared with saline irrigation, and after expulsion of the barium, air inflation should always be done for the final picture.

3. *Differential Diagnosis.*—The procedures outlined above furnish the basis for differentiation between the following causes of dysentery:

1. *Endameba histolytica.*
2. Bacterial dysenteries, including those due to *B. dysenteriae*, streptococci, food poisoning groups and salmonella, staphylococci, anaerobes, and possibly others, such as *B. proteus* and paracolon bacillus.
3. Spirochete or spirilla.
4. Chronic ulcerative colitis.
5. New growths.
6. Tuberculosis and syphilis (which are rarely seen).
7. Heavy metals, especially mercury and arsenic.
8. Rare dysenteries caused by malaria, and various helminths, including the flukes.
9. Foreign bodies, gross or microscopic.
10. Allergy.
11. Regional enteritis.
12. Diverticulosis and polyposis.

<sup>1</sup> Callender, G. R.: The Differential Pathology of Dysentery. *Am. J. Trop. Med.*, 14: 207, 1934.

<sup>2</sup> Reed, A. C., and Johnstone, H. G.: Methods for Diagnosis of Amebiasis, *J. A. M. A.*, 99: 729 (Aug. 27), 1932.

<sup>1</sup> Kessel, J. F., et al.: Amebiasis and Bacillary Dysentery in the Los Angeles County Hospital, 1929-1935. *Am. J. Trop. Med.*, 16: 417 (July), 1936.

# CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

## CALIFORNIA MEDICAL ASSOCIATION

HOWARD MORROW.....President  
WILLIAM W. ROBLEE.....President-Elect  
LOWELL S. GOIN.....Speaker  
MORTON R. GIBBONS.....Council Chairman  
FREDERICK C. WARNSHUIS.....Secretary-Treasurer

### OFFICIAL BUSINESS

1. *Council Minutes, Two Hundred Fifty-Seventh Meeting, August 14, 1937.*
2. *Council Minutes, Two Hundred Fifty-Eighth Meeting, October 2, 1937.*

### Minutes of the Two Hundred and Fifty-Seventh Meeting of the Council of the California Medical Association\*

Held in Room 302, Sir Francis Drake Hotel, San Francisco, Saturday, August 14, 1937, at 9:30 a. m.

1. **Call to Order.**—The meeting was called to order by Chairman Gibbons, with the following members present: President Howard Morrow; President-Elect William Roblee; Speaker Lowell S. Goin; Chairman of Council Morton R. Gibbons; Councilors Calvert Emmons, Carl R. Howson, Louis A. Packard, Alfred L. Phillips, Henry S. Rogers, Harry S. Wilson, William H. Kiger, T. Henshaw Kelly, Karl L. Schaupp; Chairman of Public Relations C. A. Dukes; Editor George H. Kress; Secretary F. C. Warnshuis; General Counsel Hartley F. Peart and his associate, Mr. Howard Hassard.

Absent: Past President Edward M. Pallette; Councilors A. E. Anderson, J. B. Harris, O. D. Hamlin, and C. O. Tanner.

Doctor Gibbons stated that the purpose of this special meeting was to arrive at a definite conclusion about the publication of the Report of the California Medical Economic Survey.

2. **California Medical Economic Survey.**—A lengthy discussion was engaged in regarding the Medical-Economic Survey.

3. **Minutes of the Executive Committee.**—It was moved by Councilor Schaupp, seconded by Councilor Emmons, that the minutes of the one hundred and fifty-first and one hundred and fifty-second meetings of the Executive Committee be approved. Carried.

4. **Conference of Secretaries, Standing Committees, and Officers.**—Owing to conflicts with other meetings the date originally set for the meeting of the Conference of Secretaries was declared undesirable.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Kelly, that the Conference of Secretaries, Standing Committees, and Officers be held on October 2, in San Francisco. Carried.

5. **Fall Council Meeting.**—The date of the fall meeting of the Council was set as Sunday, October 3, at San Francisco.

6. **Article for Journal.**—An article submitted for publication in the JOURNAL was discussed, and it was moved by Councilor Schaupp, seconded by President Morrow, that

\* The minutes of the two hundred and fifty-sixth meeting of the Council of the California Medical Association were printed in the June, 1937, issue of CALIFORNIA AND WESTERN MEDICINE, page 427. Minutes in this series now printed are for the two hundred and fifty-seventh and two hundred and fifty-eighth meetings.

the action of the editor be confirmed and the article be not published. Carried.

7. **Requests for Retired Memberships.**—Membership data and requests for retired memberships were presented by the Secretary.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Schaupp, that Roy Newton Fuller, Tulare; John I. Clark, Santa Ana; Adelaide Brown, San Francisco; and Herbert R. King, Winters, be granted retired membership in the California Medical Association. Carried.

8. **Resignation of Councilor Schoff.**—The resignation of Charles E. Schoff, Councilor of the Eighth District, was presented to the Council.

It was moved by President Morrow, seconded by Councilor Emmons, that the Secretary write the county societies of the Eighth District requesting that they contact their delegates and submit names of nominees for councilor of the Eighth District and that the Council, in conformity with Constitutional provision, fill the vacancy for the unexpired term at its next meeting. Carried.

9. **Pacific Health Corporation.**—The General Counsel reported that, in accordance with previous action of the Council, and after consultation with President Morrow, he had submitted an *amicus curiae* in the case of *People vs. Pacific Health Corporation*.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Rogers, that the action of the President and the General Counsel be approved. Carried.

10. **Executive Session.**—At this point the Council went into executive session.

11. **Adjournment.**—At the conclusion of the executive session, there being no further business to come before the Council, the Chairman declared the Council adjourned.

MORTON R. GIBBONS, *Chairman*.  
F. C. WARNSHUIS, *Secretary*.

### Minutes of the Two Hundred and Fifty-Eighth Meeting of the Council of the California Medical Association

Held in Room 302, Sir Francis Drake Hotel, San Francisco, Sunday, October 3, 1937, at 9:30 a. m.

1. **Call to Order.**—The meeting was called to order by Chairman Morton R. Gibbons, with the following members present: President Howard Morrow; President-Elect William W. Roblee; Past President Edward M. Pallette; Speaker Lowell S. Goin; Chairman of Council Morton R. Gibbons; Chairman of Executive Committee Karl L. Schaupp; Councilors Calvert Emmons, Carl R. Howson, Louis A. Packard, Axel Anderson, Alfred Phillips, Henry S. Rogers, H. H. Wilson, C. O. Tanner, W. H. Kiger, J. B. Harris; George H. Kress, Editor; C. A. Dukes, Chairman of Public Relations Committee; F. C. Warnshuis, Secretary; Hartley F. Peart, General Counsel, and his Associate, Howard Hassard. Dr. Irvin Abell, Louisville, Kentucky, President-Elect of the American Medical Association, was present at the invitation of the Council. Absent: T. Henshaw Kelly and O. D. Hamlin.

2. **Minutes of the Council.**—Minutes of the two hundred and fifty-seventh meeting of the Council were submitted for approval.

On motion of Past President Pallette, seconded by President-Elect Roblee, the minutes of the two hundred and fifty-seventh meeting of the Council, as amended, were approved. Carried.

3. **Committee on Postgraduate Work.**—The Secretary read the Report of the Committee on Postgraduate Activi-

ties as formulated and submitted by Committee Chairman Ruddock, outlining the plans and recommendations of the Committee.

On motion of Chairman of Public Relations Committee Dukes, seconded by Councilor Emmons, the report of the Committee on Postgraduate Work was approved.

Discussion of the recommendation of the report regarding publication of the Brochure was had. It was recommended that the Brochure be printed as a supplement to the JOURNAL.

#### 4. Committee on Scientific Work (Annual Session).

Minutes of the meeting of the Committee on Scientific Work, which was held on Sunday, September 12, 1937, were read by the Secretary.

Councilor Schaupp moved that the report be amended by the deletion of the recommendation regarding non-members and that no registration charge be made to non-members attending our annual sessions. Carried.

The preparation of booths for scientific exhibits and commercial exhibits, as recommended in the report, was referred to the Committee on Scientific Work for discussion and report at its January meeting.

Editor Kress moved that space be not assigned to any firm whose products are not approved by the Council on Pharmacy and Chemistry of the American Medical Association. The motion was seconded by Councilor Packard, and carried.

It was moved by Editor Kress, seconded by Chairman of Public Relations Committee Dukes, that the Secretary of the Association be instructed to appoint a Committee of Three to aid him in handling all press publicity for the next annual session. Carried.

The Council authorized the Secretary to proceed with the preparation of scientific and commercial exhibit space at a cost of \$1,000. It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Anderson, that the report of the Committee on Scientific Work as amended, be approved. Carried.

5. Committee on Animal Experimentation.—The Secretary read the report of the Committee on Animal Experimentation outlining the plans and recommendations of the Committee.

It was moved by Councilor Wilson, seconded by Councilor Anderson, that the report of the Committee on Animal Experimentation be approved, with the distinct understanding that the Association's financial obligations be limited to the sum named in the report. Carried.

6. Legal Department.—Full discussion was had of a case involving testimony by doctors of medicine in trials for infractions of the Medical Practice Act. It was moved by Editor Kress, seconded by Councilor Schaupp, that Mr. Peart be instructed, acting under the direction and judgment of the Chairman of the Council, to give all possible aid to physicians involved in the case and that Mr. Peart contact the Attorney-General and the Board of Medical Examiners and ascertain to what extent they will cooperate with the Medical Association; and that the Auditing Committee be authorized to approve the necessary expenditure of funds. Carried.

7. Cancer Commission.—On motion of Chairman of Public Relations Committee Dukes, seconded by Councilor Phillips, the Council approved a meeting of the Cancer Commission on November 13 at Los Angeles to further study the problems of the Commission before the adoption of a final policy for the Field Army and authorized the payment of the transportation expense of the committee-men.

8. Qualifying Certificate Law.—George H. Kress, Chairman of the Committee on Qualifying Certificate Law, submitted a progress report for the Committee.

It was moved by Editor Kress, seconded by Councilor Packard, that the Committee on Qualifying Certificate Law be instructed to proceed with the preparation of an initiative in as nearly the final form as possible, and to submit it to the Council. Carried.

9. Survey of Association Expenditures.—William W. Roblee, Chairman of the Committee on Association Expenditures, submitted the report of the Committee, which was discussed section by section.

It was moved by President-Elect Roblee, seconded by Councilor Schaupp, that the recommendations of the Secretary in regard to clerical staff be approved. Carried.

It was moved by Past President Pallette, seconded by Councilor Anderson, that the recommendation of the Committee that all employees, after two years' employment by the Association be required, as a condition of employment, to contribute to the Association's plan for retirement annuity insurance be approved. Carried.

The Secretary and the Chairman of the Council was instructed to consummate the final arrangements for this insurance.

After discussion of publication costs, it was moved by Past President Pallette, seconded by Councilor Kiger, that the California Medical Association continue the publication of CALIFORNIA AND WESTERN MEDICINE under present arrangements. Carried.

10. Reserve Funds.—The Secretary reported on the financial status of the Trustees Of The California Medical Association.

It was moved by Councilor Phillips, seconded by Councilor Anderson, that the Council recommend to the Trustees Of The California Medical Association that \$10,000 of the reserve funds be used in the purchase of United States Government Bonds. Carried.

11. Medical Economic Survey.—On motion of Councilor Wilson, seconded by Chairman of Public Relations Committee Dukes, the following resolution was adopted:

WHEREAS, It is desirable that the factual information of the California Medical-Economic Survey, as presented in the Survey Director's final report of January 29, 1937, be printed and published as promptly as possible; now, therefore, be it

Resolved, That the cost of publication thereof be borne by the California Medical Association as the cosponsors of the survey; and be it further

Resolved, That this Council's Special Committee on Publication proceed as rapidly as possible with the printing of a sufficient number of copies to supply one copy to each member of the Association and to provide an additional one thousand copies for distribution to all interested agencies; and be it further

Resolved, That said publication be printed in the name and under the sponsorship of the California Medical Association.

12. Exhibits at American Medical Association Meeting.—It was moved by Councilor Schaupp, seconded by President Morrow, that the Secretary be authorized to contact the American Medical Association and request space for a State Association exhibit during the next session of the American Medical Association. Carried.

13. Endowment Fund.—It was moved by Editor Kress, seconded by President Morrow, that all contributions to the endowment fund be set up on the books as "The Members' Endowment Fund" and that the funds so received be then transferred to the jurisdiction of the Trustees Of The California Medical Association. Carried.

14. Publication of Annual Session Minutes.—It was moved by Past President Pallette, seconded by Councilor Phillips, that the minutes of the meetings of the House of Delegates be transcribed in detail and that a digest be prepared by the Secretary for publication in the JOURNAL. Carried.

15. Blind Aid Under Social Security.—Correspondence regarding aid to the blind under the Social Security Act provisions was presented by the Secretary and was referred to the Section on Ophthalmology.

16. Reinstatement of Delinquent Members.—It was moved by Councilor Rogers, seconded by Councilor Phillips, that all physicians whose memberships had lapsed on account of nonpayment of dues and whose dues have subsequently been accepted by the County Society and forwarded to the State Association be reinstated to membership in the California Medical Association. Carried.

17. Kern County Hospital.—It was moved by Past President Pallette, seconded by Chairman of Public Relations Committee Dukes, that the matter of residences in the Kern County Hospital be referred to the Council on Medical Education and Hospitals of the American Medical Association. Carried.

18. Exchanges and Complimentary Journals.—It was moved by Councilor Schaupp, seconded by Councilor Anderson, that an exchange be granted to the Inter-Society of Radiology. Carried.

19. Pacific Employers.—It was moved by Councilor Anderson, seconded by Councilor Wilson that the General Counsel be authorized to prepare a short brief of ten or

twelve pages on the Pacific Employers' Insurance case, and that the expense thereof be authorized by the Auditing Committee. Carried.

20. **Salinas Medical Group.**—The General Counsel advised that he had reviewed the available data on the plan of the Salinas Medical Group and had written a letter to the Monterey County Medical Society Secretary giving the law thereon.

21. **Legislative Session.**—It was moved by Editor Kress, seconded by Councilor Rogers, that a copy of the report submitted by Mr. Peart giving the activities of the legal department during the legislative session be mimeographed and a copy thereof be sent to each member of the Council. Carried.

22. **Advance to County Society.**—It was moved by Past President Pallette, seconded by Councilor Anderson, that \$200 be advanced to a county society in order to enable it to carry out certain of its society purposes.

23. **Councilor of Eighth District.**—The Secretary presented the resignation of C. E. Schoff as councilor of the Eighth District.

It was moved by President-Elect Roblee, seconded by Councilor Wilson, that the resignation of C. E. Schoff, Councilor of the Eighth District, be accepted with regret. Carried.

The Secretary submitted recommendations for councilor of the Eighth District from the county societies of the district and from the delegates of such societies, all of which nominated Frederick N. Scatena of Sacramento.

Frederick N. Scatena of Sacramento was nominated by Junius B. Harris as councilor of the Eighth District. The nomination was seconded by Henry S. Rogers. There being no further nominations, the Secretary cast the ballot of the Council and the Chairman announced the unanimous election of Frederick N. Scatena as councilor of the Eighth District for the unexpired term, ending 1939.

24. **Appreciation.**—Chairman of Public Relations Committee Dukes expressed the appreciation of the Council for Dr. Irvin Abell's visit to California and the able assistance he had rendered.

25. **Date of Next Council Meeting.**—The Chairman of the Council was authorized to select a date for the next meeting of the Council and advise the councilors thereof.

26. **Adjournment.**—There being no further business, the meeting adjourned.

MORTON R. GIBBONS, *Chairman.*

F. C. WARNSHUIS, *Secretary.*

## ASSOCIATION ACTIVITIES THIS MONTH'S TOPICS\*

### ASSOCIATION ACTIVITIES

1. *Postgraduate Conferences.*
2. *Frederick W. Scatena, Councilor for Eighth District.*
3. *Sister State Editors, Please Copy.*
4. *Association Nights.*
5. *Third Annual Conference of County Secretaries.*
6. *Appreciation to Junius B. Harris.*
7. *Passing Events.*

### DEPARTMENT OF PUBLIC RELATIONS

1. *Investigation and Exposure of Medical Frauds.*
2. *Abstract of Committee Meeting.*
3. *County Secretaries and Societies—Attention, Please.*
4. *Regulations Governing Drug Dispensing.*

### POSTGRADUATE CONFERENCES

The Committee on Postgraduate Work announces its program in a supplement that each member will receive with this issue of the JOURNAL. You are urged to read it and to aid your district councilor and your county society in initiating this program in order that you and your fellow members may benefit from these graduate opportunities.

The State Association does not purpose entering into the domain of medical education. That is a function of the medical colleges.

The State Association does, however, recognize that it has a definite obligation to provide opportunities for its

\*All articles listed under the caption, "This Month's Topics," have been written and sent to the Editor by the Association Secretary, Dr. Frederick C. Warnshuis.

members to remain abreast of scientific progress in order that they may apply modern and accepted methods in the medical services that they render. In so doing, the Association applies its resources to raise the standards of practice and medical care, and insures a wider scope of adequate medical care in California. The profession and the public will benefit by reason of this organizational activity. The Association demonstrates anew what has always characterized organized medicine, namely, that the medical profession within itself and through its organized units is the first to institute measures that enhance the health welfare interests of the public.

The committee has by no means completed or perfected its program. Many details and problems must still be developed, and methods still require constant observations and consideration before the desired objectives will be attained. This first announcement is far from being complete. It is, however, a splendid beginning. As time passes and experiences are studied, the committee will endeavor to better systematize and perfect its program. To that end suggestions are solicited.

Further comment at this time is not indicated. Read the supplement with its foreword and committee statement. You will learn as to how this program may be secured for your district; then join your fellow members in instituting these opportunities for your mutual advantage and as an additional benefit of membership in your county and state medical organization.

### FREDERICK N. SCATENA, COUNCILOR EIGHTH DISTRICT

After two terms of faithful, active, and devoted service, Dr. C. E. Schoff of Sacramento felt impelled to relinquish some of his organizational activities. In consequence, he tendered his resignation as councilor of the Eighth District. On October 3, the Council accepted his resignation with regret and tendered to Doctor Schoff a vote of appreciation for his efficient services.

The county societies and the delegates of that district were requested to submit nominations for a successor. Dr. Frederick N. Scatena of Sacramento was unanimously elected by the Council on October 3 as councilor of the Eighth District, to serve for the unexpired term of Doctor Schoff, upon the unanimous nominations of the district.

Doctor Scatena, as a new member of the Council, brings a record of faithful organizational activity in his county, district, state committees, and House of Delegates. These furnish a background that is commendable, and enable Doctor Scatena to assume his councilor duties with full familiarity with organizational affairs in California and the responsibilities of a councilor.

To the Association Secretary:—Your letter of the 4th inst. was received. I wish to thank you and the members of the Council for the esteem which they have shown me in this election. My only wish is that I may be able to serve the Council and my District as well and as efficiently as has Doctor Schoff. With the help and leadership such as the members of the Council and officers can give, I may be able to succeed in some small measure.

Doctor Schoff told me that the county societies in the Eighth District had been visited once this year; however, if it is necessary to call again, I shall be most happy to do my part.

Yours sincerely,

F. N. SCATENA, M. D.

### SISTER STATE EDITORS, PLEASE COPY

San Francisco and the California medical profession are honored and proud that the 1938 annual session of the American Medical Association is to be held in San Francisco, June 13 to 17. Plans are under way and committees have been at work to make this a notable and memorable session. Every endeavor will be made to cause all in attendance to be the recipient of the famed California hospitality. A cordial invitation is extended to not only attend the annual session, but also to plan to spend as much time as possible in visiting sections of California to see its scenic grandeur, its wonderful parks, its mountainous areas, and its fertile valleys with highways unequalled.

It is pleasing to note that several state medical journals have editorially urged members to plan to attend and to join special groups and trains for the westward trip. The

headquarters office of the California Medical Association will be happy to advise and give information to these groups that are planning a Pacific Coast tour.

There is but one request. In referring to the meeting place, please say "San Francisco," and not "Frisco." San Francisco, with its rich historical background, its Golden Gate, its wonderful harbor, its seven hills, parks, homes, public buildings, bridges, climate, and citizens, has pride in the connotation of San Francisco.

#### AMERICAN MEDICAL ASSOCIATION 1938 ANNUAL SESSION AT SAN FRANCISCO—HOTEL RESERVATIONS

The Board of Trustees of the American Medical Association has appointed Dr. Howard Morrow of San Francisco, President of the California Medical Association, as chairman of the local Committee on Arrangements for the annual session of the American Medical Association that is to be held in San Francisco the week of next June 13. Doctor Morrow will be assisted by a number of subcommittees, which he will appoint and announce at a later date.

Contracts have been executed with all of the leading hotels of San Francisco, and all reservations for hotel accommodations will be cleared through a central Hotel Committee. All hotels have agreed to clear no reservations unless they are received through the central Hotel Committee. Do not write direct to any hotel. Send in your reservations to the Hotel Committee, of which Dr. F. C. Warnshuis, Suite 2004, 450 Sutter Street, San Francisco, has been appointed chairman.

It is well to remind members that none but fellows of the American Medical Association can register and attend the annual session. Admission will be by badge only, which is issued upon registering.

To become a fellow of the American Medical Association it is necessary for one to belong to a county and state medical association. Then one must apply for fellowship on a prescribed blank which must be countersigned by the state secretary. This blank must then be sent to Dr. Olin West, Secretary of the American Medical Association, with a remittance of the annual dues of \$7 per year. In addition to being a fellow, one receives the *Journal of the American Medical Association*.

There are a certain number of members who believe that they are fellows because they send in subscriptions to the *Journal of the American Medical Association* each year but who have neglected to make special application for fellowship. Unless you have a fellowship card you are not a fellow and cannot register.

Fellowship application blanks may be obtained from the State Secretary. If you are not a fellow, but desire to attend the 1938 annual session, it is urged that you send in your application by January 1. Also that you write early for your hotel reservation. Desirable rooms will be at a premium in April and May. Almost two thousand hotel reservations have been made to date. You will be greatly disappointed if you neglect attending to this detail.

#### ASSOCIATION NIGHTS

On September 16 and 17, Councilors Anderson and Packard and the Association Secretary visited the regular meetings of the Merced, Kern, and Fresno county societies.

The Merced meeting was a noon luncheon, with a very fine turnout of members.

The Kern and Fresno meetings were night sessions, and with each of these counties presenting a good majority of their members in attendance.

Local and State problems were reviewed during a more or less informal discussion, and questions and answers. Such conferences make for better understandings, are informative and inspiring, and tend to bring about greater and more satisfactory results from organizational activities. They cement our thirty-nine county units into a State organization that is united in purpose and action. During the coming months, visits will be made to every county organization.

#### THIRD ANNUAL CONFERENCE OF COUNTY SECRETARIES

On October 2, in San Francisco, seventy-two county secretaries, committeemen, and councilors attended the all-day session of the third annual conference of county secretaries and members of standing committees.

A distinguished guest speaker was Dr. Irvin Abell of Louisville, Kentucky, President-Elect of the American Medical Association. Doctor Abell delivered an address on the economics of medicine. In its clarity, soundness of thought, and analysis of conditions and trends, Doctor

Abell's address was the finest exposition of the subject ever given before any medical gathering. Doctor Abell also attended the Council meeting on Sunday.

Standing committees held sessions between 9 and 10 in the morning and during the noon recess. The announced program was carried out in detail, with Chairman Gibbons presiding. The conferences adjourned at 4:30 p. m., following a general summary by the State Secretary.

The conference inspired anew those in attendance to intensify organizational activities and cause them to expand, to the end that greater benefits will accrue to all members and indirectly to the public.

Those in attendance, in addition to the twenty-five officers and councilors, were:

G. W. Walker, Fresno; Lawrence A. Wing, Eureka; C. S. Compton, Bakersfield; W. A. Johnstone, Hanford; John V. Barrow, Los Angeles; A. Elmer Belt, Los Angeles; Fred B. Clarke, Long Beach; John B. Doyle, Los Angeles; Ralph B. Eusden, Long Beach; George D. Maner, Los Angeles; Orville N. Meland, Los Angeles; William R. Molony, Los Angeles; E. O. Raulston, Los Angeles; E. T. Remmen, Los Angeles; John C. Ruddock, Los Angeles; Philip Stephens, Los Angeles; R. W. Swinney, Long Beach; Clarence G. Toland, Los Angeles; Howard F. West, Los Angeles; A. H. Zeller, Los Angeles; S. K. Cochems, Los Angeles; M. Booth, St. Helena; Harry E. Zaiser, Orange; C. Glenn Curtis, Brea; Robert A. Peers, Colfax; H. L. Ratliff, Riverside; G. E. Millar, Sacramento; F. E. Clough, San Bernardino; Arthur E. Varden, San Bernardino; Lyell C. Kinney, San Diego; Willard H. Newman, San Diego; George H. Rohrbacher, Stockton; Dewey R. Powell, Stockton; William H. Eaton, Santa Barbara; Leslie J. Seeley, Redding; A. A. Morrison, Santa Paula; F. W. Didier, Wheatland; Gertrude Moore, Oakland; Stanley Mentzer, San Francisco; George G. Reinle, Oakland; Alson Kilgore, San Francisco; Harold Brunn, San Francisco; Nelson Howard, San Francisco; H. J. Ullmann, Santa Barbara; M. R. Makinson, Oakland.

The following are individual comments:

"I enjoyed the meeting of the Third Annual Conference of County Secretaries very much. I also enjoyed meeting Doctors Abell, Gibbons, and Harris. I was particularly impressed by the talk of Mr. S. K. Cochems. We need speakers here to give us salesmanship and other pointers. I know that Shasta County Society would welcome a member of the Speakers' Bureau at each meeting. I would be pleased if you could let me know how we may contact him for an available speaker."

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"It was well worth my time to attend the Third Annual Conference of the County Secretaries and committeemen. A number of things were of special interest: (1) Post-graduate opportunities are going to be made possible for doctors out in the rural districts in the State of California. (2) The advice to doctors on how to educate the public was practical and good counsel. (3) To see Dr. and Mrs. J. B. Harris receive a gift for their good work in behalf of the medical profession was excellent. (4) President-Elect Irvin Abell's address was a great collection of ideas which show that the author is very considerate of the medical profession."

\* \* \*

"While the Conference is very instructive and there is considerable pleasure in meeting and rubbing shoulders with the men who are doing things for the California Medical Association, yet I feel that the whole arrangement is uneconomical because of the total aggregate loss in time of those attending and also the monetary cost to the Association. It would seem to me that the councilors in the various districts could convey to us all the information that was essential for us to have at their various meetings with the county societies or preferably at a meeting with the Board of Directors and officers of each county unit. I believe that it is necessary for the councilors to attend several councilors meetings a year, at which a policy is discussed and settled, and I believe it is also obligatory for the various councilors to visit the component societies in their district at periodical intervals and by this arrangement there would be the saving in total hours, in travel and attendance at these annual meetings of secretaries, and also considerable saving to the California Medical Association in transportation costs.

"If it were deemed essential to have a meeting of secretaries of the component medical societies, I would suggest that the by-laws of the California Medical Association be amended to make the secretary of each county society a delegate to the California Medical Association convention, at which time the meeting could be held. This might require the amending of each component society's by-laws to conform with that of the California Medical Association, but that could be easily accomplished."

"The value of the Third Annual Conference of County Secretaries and committee members cannot be measured concretely, but need not stop with the increased understanding and interest of those attending. If each officer will take the charts to be published in the California Medical Association Journal and go over them with their component groups, widespread dissemination of useful information may be made possible with consequent increased emphasis placed upon the value of membership."

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"I consider the address of our American Medical Association president-elect a masterpiece, and think it should be in the hands and read by every physician and political office holder in the country. Personally, I would advocate a militant attitude toward predatory politicians who stand for social medicine. In all probability the difference that doctors now receive will line the politician's pocket instead."

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"The last meeting of the secretaries of the component county societies of the California Medical Association was a real one. I should like to thank you personally for the manner in which it was conducted. As you realize, the real highspot was Irvin Abell. The boys are still talking about the meeting and Doctor Abell."

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"I think that this meeting was well worth while—as should be any meeting which brings together county and state officers and members of committees."

"I was particularly pleased with the response of the various committees and the fact that all the committees are working. Such meetings as we had on October 2, where the various committee chairmen must report on the activities of their committees, keep everyone on his toes. Too frequently in the past, committees have been inactive, due largely to the fact that the members are scattered throughout the State, and no such stimulus, such as the recent meeting, has been present to activate the members."

"I am sure that these annual conferences are going to be of immense value in keeping our members throughout the State acquainted, through the secretaries, with medical activities, and, as a result, will further our plans for a more perfect welding together of the State membership."

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"I have been fortunate in being able to attend all three of the conferences for county society secretaries. They have all been stimulating and educational from a secretary's standpoint, and I have found them very profitable."

"This last meeting was up to standard, and I have no comments to make other than that it was a rare privilege to hear Doctor Abell, and an October meeting is much more satisfactory to me than the mid-winter meeting."

"Whenever possible I believe it is well to have an officer of the American Medical Association on the program, as you have had the past two meetings."

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"In answer to your letter of October 6, requesting comments on the annual conference, I feel that these meetings are of tremendous help and benefit to the county secretaries. It gives the secretaries an opportunity to get, in condensed reliable accurate form, the policies of the California Medical Association."

"However, I would like to suggest that these meetings could be made a bit more helpful if an hour were given to definite instructions regarding the routine duties of the secretary, showing the reason and importance of each duty."

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"May I congratulate you for what seemed to me the very best meeting of the county secretaries held by the California Medical Association on Saturday, October 2, 1937? I found the meeting more profitable and more enjoyable than any others that I have been privileged to attend."

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"As secretary of the Napa County Medical Society, it is my belief that these meetings are highly profitable to the secretaries and to the membership of the California Medical Association in general. From these meetings it is possible for us to convey to our local societies the various problems which confront the profession and which are vital both to our own membership and to the health of the State of California. It is my wish that such meetings may be continued in the future."

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"I have attended all three of the secretaries' conferences and I feel that each one has been a little better organized and instructive than the one preceding. As a suggestion, I think some means should be sought to get the various

county representatives to discuss their more important local problems; I think a brief discussion of these meetings would be of value to other counties of similar conditions and population."

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"The meeting was interesting and useful. I enjoyed it. There was much food for thought. We were well taken care of."

"I wish every member of the profession could have heard Doctor Abell's paper read; also that it can be published to the laity. Our membership, our wives, our office assistants, are in for a fight on those initiative measures especially. Some balancing type of publicity must be forthcoming to offset these associations of sheriffs, county employees, Farm Grangers, etc., the great army of leftists, and would be recipients of more unearned favors."

#### APPRECIATION TO JUNIUS B. HARRIS

To evidence in a substantial way the appreciation of many for the services rendered by Doctor Harris as chairman of the Committee on Public Policy and Legislation, personal subscriptions made this possible. Just before the Conference adjourned for luncheon, Chairman Gibbons addressed the Conference in the following manner:

At this time I feel that I must present to this conference a serious matter that deserves your close and careful consideration.

During the last month of the recent session of the State Legislature, and subsequent thereto, even as late as this morning, rumors, comments, remarks, have filtered through official, as well as other devious channels, that were concerned and related to our Association's legislative interests and activities. The earnestness and sincerity back of these statements, coming from members whose motives could not be questioned, and the insistency of repetition, does not permit me to ignore them further.

Yesterday I learned that an unofficial, self-constituted and self-appointed committee, composed of past officers, councillors, and a few members of our Association, had taken cognizance of the situation. This self-created committee, I learned, undertook an investigation. I am informed that they interviewed members of the Legislature, chairmen of legislative committees, lobbyists, officials, and even went so far as to obtain sworn statements from innkeepers, and proprietors of the elite as well as the lesser reputable night clubs and Japanese resorts in Sacramento.

As a result of the evidence obtained and the facts that were substantiated, this unofficial committee again conferred and drafted a report. This report has been submitted to me. I shall now ask the secretary to read that report for your consideration.

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The secretary read the report, which follows:

"In appreciation: To 'June' and 'Hazel' Harris."

"The officers and members of the Council of the California Medical Association, together with certain past officers and councillors, join in tendering to you this chest of silver. May it always recall to you our expressions of esteem and assure you of our very genuine appreciation for your most generous and willing contribution of your time and ever constant efforts in conserving the interests of the medical profession."

"We are mindful of the personal sacrifices that you have made and realize that we can never adequately compensate them. To us there is the satisfaction of a trust well reposed. To you, we hope, comes a satisfaction in knowing that your labors are recognized and appreciated."

"We are also mindful of the fact that 'Hazel' has not only been your helpmate, but that she, too, has made many personal contributions and sacrifices. We are fully aware that 'Hazel' has been compelled to adapt herself and home to the demands made upon 'June' frequently; often at a moment's notice she has been called upon to be hostess and rearrange her plans. This she has done cheerfully in a spirit of gracious hospitality."

"For all these and many other contributions and services rendered, we tender to 'June' and 'Hazel' our thanks, and emphasize it with this chest of silver. Accompanying it are all of our good wishes that health, contentment, and the joy of friends may attend both of you for many, many years."

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"June" and "Hazel." I have no alternative—I would not desire one. It is, therefore, my privilege to present to you and Hazel this tangible expression of our thanks, appreciation, and esteem, on behalf of this unofficial committee."

Although taken by total surprise, Doctor Harris responded, expressing his thanks.

## PASSING EVENTS

"There is one thing that is stronger than armies; and that is an idea whose time has come."—Ponder on that.

"The present is in every age merely the point at which the past and future meet. There is never a moment when the new dawn is not somewhere breaking over the earth and never a moment when the sunset ceases to die. We should greet the new dawn serenely, not hastening to it with undue speed nor yet leaving without regret the dying light that once was dawn."

Dr. Meyerding, Secretary of the Minnesota State Medical Society, was a welcome caller on October 6. Minnesota has economic problems comparable to those of California. The Society is evidencing concerted activity in meeting them.

The application of the recently enacted law relating to dispensing of drugs is outlined by the secretary of the Pharmacy Board in the Public Relations Department of this issue. It is important that you read these regulations.

Several new advertisements appear in this issue. Read them. Your preference in patronizing all of our supporting advertisers is an obligation that should not be neglected.

Interesting Auxiliary reports appear in every issue—your wife, mother, sister, or (?) will be interested in them.

No matter what enactments legislatures may adopt, industrial hygiene and safety will never be secured until the workers, themselves, are educated in regard to the dangers incidental to particular trades and become willing to join in observing safety and preventive regulations. Employees and employer must evidence mutual trust.

County societies would do well to sponsor and conduct a series of three to six public meetings on Sunday afternoons. At these meetings capable speakers should present dependable facts related to disease and preventive medicine. Education of the public in regard to county and private health will be a powerful factor in defeating the quest of irregulars and quacks. Consideration should be given to this feature of county society work.

Surely, Robert A. Peers is not the only member to contribute \$100 to an Association endowment fund. (See September issue, editorial.) It is desired that five hundred members remit a \$100 subscription each. You, fellow member, will you send in your \$100 this month? You can make it in two or four payments, if you wish. Please assist in establishing this initial endowment fund nucleus. It would be fine if county societies, as a society, would subscribe to this fund, in addition to personal subscription of members.

Since the above was written, Dr. Charles A. Dukes of Oakland became subscriber number two by sending in his check for \$100. This leaves 498 subscriptions still to be subscribed. Shall we receive yours?

The Supplement accompanying this issue contains information that is of tremendous value to each member. You are invited to acquaint yourself with its contents.

It does seem desirable to dwell upon the "spirit of coöperation" because, rightly employed, it is fraught with potent power. At times members are woefully reluctant to coöperate. Each is inclined to travel his own way, letting the other fellow do the same. Members are jealous individuals—sometimes overly narrow in their spirit of living and let live. In our inner inwards we strive more to obstruct than to press forward.

Great is the duty we owe to our profession and so, too, great is the duty we owe to each other—but how often do we forget! So let us coöperate a bit more and unite our efforts to advance our group guild interests.

## C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

## Investigation and Exposure of Medical Frauds

Our state and county medical organizations are not police officers nor are they law-enforcing agents. Violations of local and state laws become the responsibilities of law-enforcement officers—sheriff, police, and district attorney or special enforcement officers. The manner in which these officers proceed against violators far too often depends upon who is involved, their political influence and votes for reelection. A sad, but true commentary upon law enforcement.

Every day many violations are winked at and steps for prosecution are neglected. These violations by quacks, impostors, racketeers and manufacturers in the field of health, medicine and pharmacy, result in the loss of lives and in irreparable damage to individuals. The law winks, but the toll of death and physical suffering and disabilities accrue by reason of unrestricted operations of these nefarious groups and rackets. The people pay a heavy penalty.

It is estimated that \$10,000 a year would make it possible to expose and sign complaints against those who thus traffic in human lives and health of people in California. That being so, is there not someone or some lay group that will volunteer to organize, raise the fund, and undertake such a campaign to safeguard our people and rid California of these rackets? Such an undertaking merits the consideration of existing lay organizations, and it is hoped that someone will initiate this movement.

## Abstract of Committee Meeting

Chairman Dukes commented upon the following activities of the committee at the meeting held during the conference on October 2.

*Present Activities.*—During the past three years this committee has initiated and maintained the following activities:

Advisory to departments of State government in matters related to public health welfare.

Director serves as medical adviser to the Division of Automobile Drivers' Licenses when questions of physical defects and disabilities arise. This is a confidential service. Health Committee of the Parent-Teachers' Association.

Health Committee of Y. W. C. A.

Public Libraries—Advising as to purchase of books on health and medical care.

Advisory to Associated Press.

Press releases to 250 newspapers.

Lay Information Bureau—Answering some thirty mail inquiries per month.

Arranging for speakers for lay meetings.

Director has just been elected vice-commander, and next year will be commander of the Daylight Post of the American Legion, thereby establishing official contact with the higher councils of the State Department of the American Legion. A valuable contact.

Supervision and approval of proposed and operating plans for hospitalization insurance.

California Medical Association Forestry Medical Service in conjunction with Federal and State Forestry Services.

Director is serving on the Advisory Committee of the Hall of Science of the Golden Gate International Exposition. Weekly meetings of committee, of which Chauncey Leake is chairman.

*Proposed Expanding Activities:* (For approval.) State Speakers' Bureau to provide speakers for lay meetings and to urge auxiliaries to sponsor more lay meetings.

Formation of a "State Joint Committee on Public Health Education," composed of representatives of California Medical Association, Dental Association, health officers, Red Cross, Nurses' Association, Safety Council, Hospital Association, Teachers' Association, Parent-Teachers' Association, Pharmacists' Association, medical colleges, Department of Education, and Boy Scouts. (To hold quarterly conferences.)

Editorial Committee, to prepare health articles for scheduled releases to the press.

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

Doctor Crosby discussed the plans and operating experiences of the Insurance Association of Approved Hospitals of Alameda County.

The publicity educational program presented by Dr. Fred B. Clarke, as outlined in another item in this issue's Department report, was approved. The Director was instructed to transmit this plan to county secretaries with the request that it be applied in each county.

The Director requested that he be authorized to solicit members for articles for newspaper release, approved.

The Director recommended that the Committee on Public Relations sponsor and initiate the organization of a Joint Committee on Public Health Education, such committee to be composed of two representatives of each state organization that is concerned with public-health welfare and medical care for the purpose of conducting a program, state-wide, of public education. The recommendation was approved and the Director was instructed to arrange for an organizational meeting.

The Director was instructed to contact the Inter-Coast Hospitalization Insurance Company relative to policy rider covering laboratory services.

#### County Secretaries and Societies—Attention, Please

During the Conference of County Secretaries and Committees, held on October 2, Dr. Fred B. Clarke, Chairman of the Committee on Health and Public Instruction, presented the plan outlined below. It was approved, and county secretaries and societies are urged to inaugurate the plan in their respective communities. A local committee should be placed in charge and bring about operation of this excellent plan. This should be one of your major activities this fall and winter.

The following program is suggested by the Committee on Health and Public Instruction:

An educational program whose major objective is to familiarize the people regarding tuberculosis and heart disease, especially among children of the school age.

The program is to be sponsored by local Medical Associations in various towns and counties, Health Departments, Anti-Tuberculosis Associations, Woman's Auxiliary, and the Parent-Teachers' Association.

Educational activities in the schools can be conducted by the Parent-Teachers' Association, Medical Associations, and Health Departments, in the way of tuberculin tests, etc.

These two programs may be carried out as follows:

It suggested that the first program be on tuberculosis, and that the following medium be used:

1. Four articles at weekly intervals in the press, written and prepared by members of the Association, health officers, etc.
2. An announcement of such a program by local radio stations, and one or two fifteen-minute talks by physicians over the radio.
3. Four leaflets, to be prepared by physicians, dealing with various phases of tuberculosis, such as early recognition in school children by tuberculin tests, early symptoms of tuberculosis, care of tubercular patients, and importance of recognition of contacts.

The above information can be easily secured through cooperation with the local Tuberculosis Association or can be written by various physicians interested in the subject of tuberculosis.

These inserts can be, and I know will be, wrapped in packages in stores, such as department stores and drug stores. Each insert is to deal with a different phase and to be delivered the first of each week, and it is suggested that the Auxiliary would be glad to see that such deliveries are made.

4. Practically every city of any size has an advertising medium delivered once a week to every home. They can be induced to cooperate by carrying a suitable message.

5. Cooperation of utility companies to the extent that a small insert dealing with the prevention of tuberculosis can be enclosed in their monthly statements.

The submitted program is inexpensive. It can be carried out in cities of 160,000 for approximately \$160. It is possible in this way to reach each and every home in the city.

It is suggested that the program on tuberculosis be instituted the first of December in order that great interest can be created in this subject and, incidentally, promote the sale of Christmas Seals, thereby giving the Anti-Tuberculosis Association funds with which to carry on their work. We feel that a similar program upon heart disease, especially among young people, can be carried out in the spring.

#### Regulations Governing Drug Dispensing

The Board of Pharmacy has issued the following opinion which is of importance to every physician, dispensary, and hospital.

In a sweeping opinion of Attorney-General U. S. Webb, hospitals were required to employ pharmacists for the dispensing of medicines, except in such cases where the physician dispensed medicine to his own patient.

Honorable W. M. Fulton  
Secretary, California State Board of Pharmacy  
450 McAllister Street  
San Francisco, California

Dear Sir:

I have your letter dated June 16, 1936, reading as follows:

"Our inspector made a report on the Merced County Hospital. He found there a well-equipped drug store, including narcotic and barbituric preparations. No pharmacist was employed there, the dispensing being done by a young woman. A small assortment of these drugs is also kept on the floors, where they are dispensed by nurses.

"Our inspector told the manager he should employ a pharmacist. The manager took the matter up with the Merced County Board of Supervisors, who referred the matter to the District Attorney, who gave them his opinion that the pharmacy law does not extend to hospitals.

"We understand they will employ a pharmacist if they have to, but want an opinion from the Attorney-General as to whether they have to.

"Does the law exempt a hospital from having a registered pharmacist in charge and a drug-store permit if the hospital has a stock of drugs in the building?

"A written opinion will be appreciated."

Section 1 of the State Pharmacy Law, Statutes 1905, page 535, as amended, reads in part as follows:

From and after the passage of this Act it shall be unlawful for any person to manufacture, compound, sell, or dispense any drug, poison, medicine or chemical, or to dispense or compound any prescription of a medical practitioner, unless such person be a registered pharmacist or a registered assistant pharmacist within the meaning of this Act, except as hereinafter provided. Every store, dispensary, pharmacy, laboratory or office for the sale, dispensing or compounding of drugs, medicine or chemicals, or for the dispensing of prescriptions of medical practitioners, shall be in charge of a registered pharmacist.

The following provision is found in Section 12 of the same Act:

Nothing in this Act shall apply to or interfere with anyone who holds a physician's and surgeon's certificate who is duly registered as such by the State Board of Medical Examiners or the State Board of Osteopathic Examiners of this State, with supplying his own patients as their physician, and by them employed as such, with such remedies as he may desire, and who does not keep a pharmacy, open shop or drug store, advertised or otherwise, for the retailing of medicine or poisons, . . .

In *People vs. Cohen*, 157 N. Y. S. 591, the Court construed the word "dispense" as used in a statute requiring the keeping of certain records by persons authorized to sell or dispense drugs, as follows:

To "dispense" is to deal out; to distribute; to give. *Johnson vs. City of Chattanooga*, 97 Tenn. 247, 36 S. W. 1092; Words and Phrases Judicially Defined. A "prescription" is a mere formula for the preparation of a drug and medicine. It may be filled or not, as the person to whom it is given elects; but until it has been filled and the substance delivered, we think there is no "dispensing" of the drug itself.

I quote further from the decisions:

A "dispensary" is a place where the drug is prepared or distributed. We, therefore, are of the opinion that a physician who merely writes a prescription and does nothing more cannot be said to "dispense" the drug or article described in the prescription. It is well known that many physicians do in fact keep on hand and deliver to their patients medicine which they prescribe. Others do no more than write the prescriptions and give it to the patient to have it prepared and filled by the druggist or pharmacist.

These definitions are in accord with those found in Webster's New International Dictionary and in Words and Phrases Judicially Defined.

As I understand the situation, as described in your letter and your subsequent oral communication, a stock of drugs

is kept on hand in the Merced County Hospital, and one of the nurses therein, as well as the superintendent of the hospital, does from time to time, on the order of some one of the several physicians who have patients in the hospital, take drugs and medicine from said stock and give them to nurses for administration to patients under their charge.

I think there can be no question that the stock of drugs in said hospital from which medicine and drugs are taken for administration to patients is a "dispensary" within the meaning of Section 1 of the Pharmacy Act above quoted.

Dealing with drugs and medicines in the manner above described is contrary to the provisions of the State Pharmacy Law. In my opinion, it cannot be said that a doctor is "supplying his own patients as their physician . . . with such remedies as he may desire" when medicines are taken from stock and given to nurses in this way. The evident reason for the exception of physicians from the requirements of the Pharmacy Act as provided in Section 12 thereof is that physicians are presumed to have a technical knowledge of drugs and medicine which will enable them to dispense the same with safety to their patients, provided they do so directly and not through an intermediary, such as a pharmacist or assistant pharmacist.

In the case which you state, the drugs and medicine are really being dispensed by the superintendent and nurses, and not by the physician. It is my opinion that if it is not practical for the physicians having patients in the Merced County Hospital to dispense drugs and medicine directly to their patients, the Pharmacy Law can be complied with only by putting a registered pharmacist in charge of the stock of drugs and medicines in said hospital.

You ask further whether the hospital should be required to take out a drug permit.

A pharmacy is defined in Section 1 of the State Pharmacy Law as follows:

Every store or shop where drugs, medicines or chemicals are dispensed or sold at retail, or displayed for sale at retail, or where prescriptions are compounded, which has upon it or in it as a sign the words "pharmacists," "pharmaceutical chemist," "apothecary," "druggist," "pharmacy," "drug store," "drugs," or any of these words shall be deemed a "pharmacy" within the meaning of this Act, and no store or shop shall use the words "drug" or "drugs" in any advertisement or display unless a licentiate is in charge.

Section 1½ of the law requires all owners of pharmacies or drug stores to be registered with the California Board of Pharmacy. The fifth paragraph of said section provides as follows:

It shall be the duty of the Board to issue a permit to conduct said pharmacy or drug store, if all of the provisions of the law have been complied with upon making an application and paying the fee of one dollar for each and every drug store or pharmacy, and shall be renewed annually at the same rate on or before November 1 of each year.

It is not possible from your statement of the facts to determine whether the dispensary in the Merced County Hospital falls within the above-quoted definition of a pharmacy. If it does in fact fall within such definition, a permit must be issued to operate it, as required by Section 1½ of the Pharmacy Act.

Very truly yours,

U. S. WEBB, *Attorney-General.*

(Signed) Lucas E. Kilkenny, *Deputy.*

The Board is notifying all hospitals throughout the State of the opinion, and requesting their immediate compliance to these provisions.

## COMPONENT COUNTY MEDICAL SOCIETIES

### SAN BERNARDINO COUNTY

The annual meeting of the San Bernardino County Medical Society was held at the Fontana Farms Inn, on Tuesday, October 5. Dinner was served to about fifty-three members and guests.

The application for membership of Dr. Ben D. A. Miano was favorably voted upon.

Dr. C. L. Emmons, Chairman of the Committee for Tuberculous Service, reported that, after several meetings, the following had been recommended by the committee:

1. That all care of tuberculous patients be under medical supervision.

2. That a part-time specialist in tuberculosis be named to supervise the hospital care of patients.

3. That there be some coordination with the nursing agencies already in existence, and that more public health nurses be employed as funds will permit.

4. That the number of hospital beds for tuberculous patients be increased as funds will permit.

The following officers were nominated for the years 1937-1938: Delbert B. Williams, president; V. M. Pinkley, first vice-president; Floyd Gardner, second vice-president; and Arthur E. Varden, secretary-treasurer.

It was moved and seconded that the Society cast a unanimous ballot for the above-named officers. Passed.

Retiring President Mock presented the new president, Doctor Williams, who made a short speech of acceptance.

Dr. D. C. Mock gave as his address, as the retiring president, *Progress in Medicine*. In closing, Doctor Mock suggested that the history of the Society be compiled by a committee.

It was moved and seconded that the president appoint a committee to compile and write the history of the San Bernardino County Medical Society. Passed.

The president introduced the Hon. C. E. Greer, Chairman of the Board of Supervisors of San Bernardino County, who addressed the Society on *Welfare Problems as They Affect San Bernardino County*.

ARTHUR E. VARDEN, *Secretary.*

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### SAN JOAQUIN COUNTY

The regular monthly meeting of the San Joaquin County Medical Society was held on October 7 in the Medico-Dental clubrooms, Stockton.

A letter from Doctor Doughty of Tracy, which urged that the local health district furnish vacuum tubes for collecting blood samples, was read. Doctor Sippy stated that this was being considered.

Applications for membership were accepted by J. J. Seibel of Lodi and Orvin P. Frye of Stockton.

Doctor McDonald of Sacramento spoke on the present status of the Intercoast Hospital Insurance Company and told of its growth in the last several years.

The paper of the evening was given by Dr. George H. Sanderson of Stockton, who presented a paper, illustrated by specimens, slides, and x-rays, on *Treatment of Intra-Capsular Fracture of the Hip*. The paper was very well received and many questions were asked.

G. H. ROHRBACHER, *Secretary.*

## CHANGES IN MEMBERSHIP

### New Members (36)

#### Alameda County

Harold Sipman

#### Los Angeles County

Hugh Brown

Norman F. Crane

A. M. Dodd

Herman C. Epstein

Leo W. Fate

David H. Fink

Theodore M. Hiatt

Elizabeth B. Hoyt

Marshall Y. Kremers

E. L. Mariette

Ross V. Parks

Lucius B. Phelps

Charles Posner

Frederick G. Reynolds

Victor G. Rubenstein

Morris J. Schiff

Harry Schultz

Jacob Jesse Singer

Grace F. Thomas

James I. Wargin

#### Merced County

Paul W. Schriber

#### San Diego County

Gerald F. Banks

Edward H. Calvert

William C. Satterlee

#### San Francisco County

Maurice Eliaser, Jr.

Mark Gerstle, Jr.

Modesto Giordano

Edward Francis Healey

Robert Edward Merritt

#### Santa Barbara County

Adrian F. Burkard

#### Shasta County

Malcolm Wilmes

*Sonoma County*

John F. Thurlow

*Santa Cruz County*

Reinhard J. Bachrach

**Transferred (1)**

Rudolph L. Dresel, from San Francisco County to Santa Clara County.

**Resigned (1)**

M. Elizabeth Jenkins, from San Francisco County.

## In Memoriam

**Bell, Mabel T.** Died at Ventura, September 27, 1937, age 53. Graduate of College of Physicians and Surgeons, San Francisco, 1920, and licensed in California the same year. Doctor Bell was a member of the Ventura County Medical Society, the California Medical Association, and the American Medical Association.

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**Otis, Margaret Ruth.** Died at Los Angeles, September 24, 1937, age 57. Graduate of Michigan College of Medicine and Surgery, Detroit, 1905. Licensed in California in 1925. Doctor Otis was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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**Peery, John Thomas.** Died at Corcoran, September 27, 1937, age 61. Graduate of the University of Southern California School of Medicine, Los Angeles, 1906, and licensed in California the same year. Doctor Peery was a member of the Kings County Medical Society, the California Medical Association, and the American Medical Association.

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**Schiller, Marie Margaret.** Died at Los Angeles, September 12, 1937, age 42. Graduate of Magyar Kiralyi Erzsébet Tudományegyetem Orvostudó, Pecs, Hungary, 1922. Licensed in California in 1927. Doctor Schiller was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

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**Shidler, George Porter.** Died at Torrance, September 12, 1937, age 55. Graduate of Northwestern University Medical School, Chicago, 1907. Licensed in California in 1924. Doctor Shidler was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

## THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. HOBART ROGERS ..... President  
MRS. FRED ZUMWALT ..... Chairman on Publicity

**Meeting of Board of Directors**

Résumé of the State Board meeting: Perfect concord, a common interest—these were the highlights of the special session of the Woman's Auxiliary to the California Medical Association, when the Officers and Board of Directors met in conference in Oakland, at the Hotel Leamington, on September 29.

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Fred Zumwalt, Chairman of the Publicity and Publications Committee, 3880 Clay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Zumwalt, and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

Mrs. Hobart Rogers, State President, presided. She spoke of our unity of purpose—there are no geographical limits.

The following responded to the roll call: Mrs. Frederick N. Scatena of Sacramento, Mrs. Elliot G. Colby of San Diego, Mrs. H. E. Henderson of Santa Barbara, Mrs. Charles C. Hall of Piedmont, Mrs. Harry O. Hund of San Rafael. Councilors-at-large—Mesdames A. E. Anderson of Fresno, Fred H. Zumwalt of San Francisco. District Councilors: Mesdames Dexter R. Ball of Santa Ana, Benjamin H. Sherman of Hollywood, Lawrence Knox of Carmel, J. C. Geiger of San Francisco, Harold G. Trimble of Piedmont, Robert M. Furlong of San Rafael.

It was gratifying to see so many county presidents, many of whom came long distances. These were Mesdames A. A. Alexander of Alameda, Thomas Gocher of Marin, Hans Barkan of San Francisco, S. W. J. Van Den Berg of Sacramento, F. G. Maggs of San Joaquin, Henry Milo of Santa Clara.

**Standing Committees.**—Each Chairman briefly outlined her work for the year. Membership and Organization, Mrs. Frederick N. Scatena; Program and Health, Mrs. Elliot G. Colby; Public Relations, Mrs. A. E. Anderson; Public Health, Mrs. J. C. Geiger; Editor and Publicity, Mrs. Fred H. Zumwalt; Hygeia, Mrs. Harold G. Trimble.

The Board appointed a Revisions Committee, with Mrs. Elliot G. Colby as chairman.

All old business was concluded, and much that was new that will prove most interesting was taken up and discussed. The following resolution was passed.

WHEREAS, By the passing to the long rest of Mrs. John V. Barrow, President-Elect, the Woman's Auxiliary to the California Medical Association has suffered the loss of a loyal member, a competent officer, and an ever constant source of help and inspiration; therefore, be it

**Resolved,** That we, the members of the Board of Directors in session this twenty-ninth day of September, 1937, pledge ourselves anew to the furtherance of the cause she so faithfully served, that we extend to her husband and to her son our sincere sympathy in their bereavement; and be it further

**Resolved,** That a copy of this resolution be recorded in the minutes of this meeting, a copy suitably engraved be sent to the family of our deceased friend, and a copy be presented for publication in CALIFORNIA AND WESTERN MEDICINE.

Mrs. Clifford G. Wright of Los Angeles was elected to serve as president-elect, the office made vacant by the death of Mrs. Barrow.

The Los Angeles Auxiliary, as a memorial to Mrs. Barrow, gave \$150 to the Lending Library Fund.

Mrs. A. A. Alexander, President of the Alameda County Auxiliary, assisted by the members of her Board, entertained at tea in her Piedmont home, honoring the members of the State Board.

**News Letter**

Dear Auxiliary Members:—The *Courier*, official publication of the Woman's Auxiliary to the California Medical Association, will be off the press and should be received by every member not later than November 16. If for any reason you do not receive your copy, consult your county auxiliary president. She will have additional copies for distribution.

We, the staff, hope you will enjoy it and we will welcome suggestions for its improvement.

Sincerely yours,

MRS. FRED H. ZUMWALT.

**Component County Auxiliaries***Alameda County*

The first fall meeting was a luncheon, graciously presided over by Mrs. A. A. Alexander. As president of the Woman's Auxiliary to the Alameda County Medical Society, Mrs. Alexander may well be proud, for the membership numbers over 255 active and interested women. This is the largest enrollment in its history. Monthly meetings are held, at which lectures, book reviews relating to the history of medicine are presented.

Mrs. Frank Baxter, as membership chairman and president-elect, is already making strides in the drive to increase

our rolls. At the meeting held in September, eight new members were cordially received into our Auxiliary.

MRS. GRANT ELLIS,  
Chairman of Publicity.

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#### Los Angeles County

The first fall meeting of the Woman's Auxiliary to the Los Angeles County Medical Association was held at the County Medical building on Tuesday, September 28, with 128 members present. Mrs. Elliot Alden, the new president, in her usual gracious manner, presented her Board to those assembled.

Dr. Alvin G. Foord, Director of Laboratories at the Huntington Memorial Hospital of Pasadena, was guest speaker. His very interesting talk on *The Diagnosis of Disease by Laboratory Methods* was illustrated by a movie film.

Mrs. Karl Von Hagen read a splendid paper on *The Insulin Treatment of Dementia Praecox*.

Heads of the following standing committees have been appointed and are already proving their ability: Public Relations, Mrs. Hyman Miller; Public Health, Mrs. Arthur J. Annis; Medical Highlights, Mrs. Karl Von Hagen. The other chairmen are: Mesdames Ward M. Rolland, Robert B. Hope, John S. Stephens, Harold E. Crowe, C. E. Futch, E. C. Pallette, and Newell Jones, who are proving equally efficient in their work.

On October 8 a benefit picnic luncheon and bridge will be given at a delightful ranch home of one of the members for the Auxiliary's Philanthropy program for the year: the distribution of baskets at the holiday season and Easter to the needy of the profession in Los Angeles County.

MRS. ROBERT L. CARROLL,  
Corresponding Secretary.

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#### Marin County

The Woman's Auxiliary to the Marin County Medical Society held their first fall meeting on Thursday evening, September 23, at the Marin Golf and Country Club. The Auxiliary joined the Medical Society for dinner, and heard Dr. Albert S. Rowe deliver a very interesting lecture on *Clinical Problems in Allergy*. The lecture was accompanied by slides. Later the Auxiliary held its business meeting in the lounge. Plans for the year were discussed and committee chairmen appointed.

MRS. R. B. HARTMAN,  
Publicity Chairman.

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#### Orange County

The Woman's Auxiliary to the Orange County Medical Association held its first fall meeting, a luncheon, at a "Bit of Scandia," on the S. Spadra Road, Fullerton, on October 5.

The guest speakers were Dr. Milo K. Tedstrom, who addressed us on *Recent Scientific Research*, and Mr. Ben H. Read of the Public Health League of California, who spoke on *Pending Legislation*.

Mrs. E. L. Russell was in charge of the program.

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#### Riverside County

The Woman's Auxiliary to the Riverside County Medical Society met for the first time this season on Monday evening, October 11, with the Medical Society. This was a dinner meeting, followed by a travel talk by Reverend Egly, who has just returned from a tour of Europe and the Holy Land. Following this the two organizations adjourned to separate rooms and held their regular meetings.

It was a very happy occasion, and we are looking forward to a good year.

MRS. T. A. CARD,  
President.

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#### Sacramento County

The Woman's Auxiliary to the Sacramento Society for Medical Improvement held its first meeting of the fall in the home of Dr. and Mrs. Nathan Hale. Sixty-five members had the pleasure of seeing Doctor Hale's movies of their European trip, taken this year.

Mesdames Albert Dunlap, Paul Guttman, Tholow Binkley, and Edward Babcock were the assisting hostesses.

Mrs. W. J. Van Den Berg, President, announced this year's standing committees: Membership, Mrs. F. A. MacDonald; Hospitality, Mrs. E. S. Babcock; Program, Mrs. Norris Jones; Publicity, Mrs. H. R. Johnson; Public Health, Mrs. W. J. Van Den Berg; Social Welfare, Mrs. C. L. Bittner.

Special committee chairmen are: Mrs. H. F. Schluter, Telephone; Mrs. J. P. Lawson, Library and County Hospital; Mrs. Ralph Teall, Hygeia; Mrs. Norris Jones, Tuberculosis Clinic.

The Auxiliary will continue the distribution of books and magazines at the County Hospital one afternoon each week, giving three mornings of the week to the tuberculosis clinic, and assisting with all public relief drives for funds.

The Auxiliary also will assist the Medical Society in securing speakers available for the public on scientific medicine.

MRS. H. R. JOHNSON,  
Publicity Chairman.

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#### San Diego County

Seventy-two members attended the luncheon given by the San Diego Auxiliary to the San Diego County Medical Society. This delightful affair was held at the Hotel Del Coronado Beach and Yacht Club. Mrs. Donald Rolph, Vice-President, presided in the absence of Mrs. Elliot G. Colby, who was vacationing in the East. Mrs. Colby sent greetings by telegram.

Dr. Willard H. Newman gave a clear and concise talk on Community Chest work, which was greatly appreciated.

Much visiting, some knitting and swimming, were enjoyed after the formal meeting.

Regular meetings, on the second Tuesday of each month, will be held at the University Club, 1333 Seventh Avenue, at 12:30 p. m. The Program Committee, headed by Mrs. William C. Cooke, promises plenty of interest. All new members are especially invited to be present, as well as those already actively interested.

MRS. MAYNARD C. HARDING.

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#### San Francisco County

Mrs. Hans Barkan, President of the Woman's Auxiliary to the San Francisco County Medical Society, will be the official hostess at the Town Forum Hall luncheon at the Clift Hotel on Tuesday, October 19, at which Dr. Victor Heiser will be the guest of honor, following his lecture at the Curran Theater at 11 a. m.

The October meeting of the Auxiliary will be held on Tuesday the 19th at 1:30 p. m., 2180 Washington Street. The program chairman, Mrs. Lovell Langstroth, will introduce Dr. Russell V. A. Lee of Palo Alto, who will discuss the campaign for the control of venereal diseases. The talk will be the second of a series of six lectures on major health problems arranged for the Auxiliary.

Following Doctor Lee's talk, Mrs. Hans Barkan will give a report from the Public Health League, and the various chairmen will submit an account of their work accomplished the past month.

Mrs. Thomas Gibson has been recently appointed to the Board of Directors. The office of admission chairman has been taken over by Mrs. Edmund J. Morrissey, in connection with her duties as membership chairman.

A round-table discussion, under the leadership of Mrs. Julius Sherman, will be held on Monday, October 18, at 1:30 p. m., at the headquarters of the Society, 2180 Washington Street. The famous book, "An American Doctor's Odyssey," will be reviewed. The history of medicine, public health, and other allied matters will furnish the topics for these meetings, which will continue on the first and the third Monday afternoons of each month. Following the study class, tea will be served, with the president and various members of the board of directors as hostesses.

Newly printed copies of the Constitution, including corrections, are on file in the Board room for the membership to use for reference, and one copy in the hands of each officer and director. Also, subscriptions for four copies of the *National News Letter* have been ordered for the Auxiliary files.

The Auxiliary will hold its November meeting on Tuesday the 16th at 1:30 p. m., 2180 Washington Street. The guest speaker for the afternoon will be Dr. Harold K. Faber, who will talk on *Infantile Paralysis*.

MRS. HARRY R. OLIVER,  
Publicity Chairman.

## MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

## NEWS

### Coming Meetings

*American Medical Association, San Francisco, June 13-17, 1938.* Olin West, M.D., 535 North Dearborn Street, Chicago, Secretary.

*California Medical Association, Hotel Huntington, Pasadena, May 9-12, 1938.* F. C. Warnshuis, M.D., 450 Sutter Street, San Francisco, Secretary.

*American Society of Tropical Medicine, New Orleans, November 30 to December 3, 1937.* N. Paul Hudson, M.D., Department of Bacteriology, Ohio State University, Columbus, Ohio, Secretary.

*Pacific Coast Surgical Association, Los Angeles, February, 22-25, 1938.* H. Glenn Bell, M.D., University of California Hospital, San Francisco, Secretary.

*Southern Medical Association, New Orleans, November 30 to December 3, 1937.* C. P. Loranz, M.D., Empire Building, Birmingham, Alabama, Secretary.

*Western Surgical Association, Indianapolis, December 3-4, 1937.* Albert H. Montgomery, M.D., 122 South Michigan Boulevard, Chicago, Secretary.

### Medical Broadcasts\*

#### Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of November is as follows:

Thursday, November 4—KECA, 10:45 a. m., The Road to Health.  
Saturday, November 6—KFI, 9:15 a. m., The Road to Health; KFAC, 11:00 a. m., Your Doctor and You.  
Thursday, November 11—KECA, 10:45 a. m., The Road to Health.  
Saturday, November 13—KFI, 9:15 a. m., The Road to Health; KFAC, 11:00 a. m., Your Doctor and You.  
Thursday, November 18—KECA, 10:45 a. m., The Road to Health.  
Saturday, November 20—KFI, 9:15 a. m., The Road to Health; KFAC, 11:00 a. m., Your Doctor and You.  
Thursday, November 25—KECA, 10:45 a. m., The Road to Health.  
Saturday, November 27—KFI, 9:15 a. m., The Road to Health; KFAC, 11:00 a. m., Your Doctor and You.

**Nurses Win Plea for Care.**—Nurses stricken with infantile paralysis while caring for the sick at the Los Angeles General Hospital during the 1934 epidemic won an important victory recently in their long fight for health and rehabilitation.

Almost one hundred nurses still suffering from the disease or its consequences now will be able to choose their own physician and place of treatment as a result of action taken by the Board of Supervisors.

Heretofore these nurses were compelled to select one of three physicians as provided under the law governing workmen's compensation.

Under the new policy a stricken nurse may designate any doctor she chooses and any infirmary or hospital for treatment, provided both are approved by a committee of five physicians recently appointed by the Supervisors to review each case.—*Los Angeles Examiner, September 29, 1937.*

\* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

**Ling Medal.**—Dr. Henry H. Lissner, Chairman of the Los Angeles City School Heart Board for the past twelve years, was this year awarded the Ling Foundation Gold Medal for altruistic services to children.

**Pacific Association of Railway Surgeons Honors Its Founder, Dr. Walter B. Coffey.**—The annual meeting of the Pacific Association of Railway Surgeons was held this year in Guadalajara, Mexico, on October 8 and 9. The session marked the thirty-fifth annual gathering of the Association. Interesting scientific and entertainment programs were given.

The Association expressed its sincere gratitude and appreciation to Dr. Walter B. Coffey, its organizer and first president, and in appreciation of his many years of untiring interest and activity presented him with an engrossed testimonial.

Program of the Guadalajara, Mexico, meeting follows:

FRIDAY, OCTOBER 8

Auditorium, University of Guadalajara

Scientific Session, 9:30 a. m.

Presidential Address.

Treatment of Fractures of the Neck of the Femur: A Critical Study of Methods—Ignacio Chavez, M.D., Chief Surgeon, Southern Pacific of Mexico. Discussion by Alfred Gallant, M.D., Los Angeles.

Hyperthyroidism Without Goiter—Manuel Alatorre, M.D., Assistant to Chief Surgeon, Southern Pacific of Mexico.

Amebic Infections and Complications—Raphael Lama-drid, M.D., Consulting Surgeon, Southern Pacific of Mexico.

Malaria: Regional Aspect—Carlos Gutierrez Santaacruz, M.D., Local Surgeon, National Railways of Mexico.

Pie de Madura—Perez Angulano, M.D., Resident Surgeon, Southern Pacific of Mexico Hospital.

All presentations will be made in English, except "Malaria: Regional Aspect."

Report of committees.

Luncheon for the members and male guests, 1 p. m.

History of the Surgical Department, Southern Pacific General Hospital (illustrated)—C. A. Walker, M.D.

Luncheon for the ladies, 1 p. m.

"A Mexican Night" at the Country Club, 8 p. m.

Ladies, members, and guests will be welcomed by the Governor of Jalisco and the Mayor of Guadalajara.

SATURDAY, OCTOBER 9

Scientific Session, 9:15 a. m.

Diagnosis and Treatment of Perinephritic Abscess: Renal Fixation: A New Roentgenographic Diagnostic Sign (illustrated) (presented in Spanish)—Charles Pierre Mathé, M.D., San Francisco.

Observations Upon the Distribution of Nitrogen in the Coffey-Humber Extract, Supracorsin—Howard H. Beard, Ph.D., Professor of Biochemistry, Louisiana State University, New Orleans.

Recognition and Treatment of Compression Fractures of the Dorsal-Lumbar Spine (with motion pictures showing a simple and effective means of reducing the compression fracture and application of cast)—William L. Weber, M.D., Chief Surgeon, Pacific Electric Lines, Los Angeles. Presented in Spanish by L. Castenaris, M.D., Los Angeles.

Nucleus Pulposus: A Cause for Low Back and Sciatic Pain (illustrated)—Howard W. Fleming, M.D., San Francisco.

The Introduction of Smallpox Vaccination Into Spanish-American Possessions through the Expedition Supported by Charles IV—Philip King Brown, M.D., San Francisco.

The Emergency Treatment of Eye Injuries (illustrated)—Warren D. Horner, M.D., San Francisco.

Report of Series of Intrapleural Pneumolysis Cases (illustrated)—Sumner Everingham, M.D., Oakland.

**Association of American Medical Colleges.**—The forty-eighth annual meeting of the Association of American Medical Colleges was held on October 25, 26, and 27, in San Francisco, with headquarters at the Fairmont Hotel.

The program follows:

MONDAY, OCTOBER 25, 9:30 A. M.

*Symposium on Examinations*

E. W. MacEwen, Dean, College of Medicine, State University of Iowa.

H. S. Diehl, Dean, Division of Medical Sciences, University of Minnesota.

R. H. Dillehunt, Dean, University of Oregon Medical School.

A Superior Written Examination (Objective Type) as Applied in the Medical School: Robert P. Dobbie, Professor of Clinical Surgery, University of Buffalo School of Medicine.

*Cultivation of Health in Relation to the Medical Curriculum*

E. Stanley Ryerson, Secretary and Assistant Dean, University of Toronto Faculty of Medicine.

*Recess*

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12:30 p. m.—Lunch at Stanford Hospital.

1:30-2:30 p. m.—Visiting Stanford Hospital, Stanford University School of Medicine in San Francisco, and Library.

2:30 p. m.—Bus trip to Berkeley Campus of University of California.

6:00 p. m.—Informal reception by the faculties of Stanford University School of Medicine and University of California Medical School in the Fairmont Hotel.

7:30 p. m.—Dinner (informal) in Fairmont Hotel for delegates, visitors, members of faculties of Stanford and California Universities and their wives.

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TUESDAY, OCTOBER 26, 9:30 A. M.

By Members of the Faculties of Stanford University School of Medicine and the University of California Medical School

*Introduction of Medical Students to the Clinical Subjects*

Introductory Course in Medicine: George Barnett, Professor of Medicine, Stanford University School of Medicine.

Introductory Course in Surgery: Frederick L. Reichert, Professor of Surgery, Stanford University School of Medicine.

Teaching of Pathology: William Dock, Professor of Pathology, Stanford University School of Medicine.

*Organization of the Senior Curriculum at the University of California Medical School*

Salvatore P. Lucia, Assistant Professor of Medicine, University of California Medical School.

*Correlation Between the Outpatient Clinic and the Senior Curriculum*

Frederick S. Bruckman, Assistant Clinical Professor of Medicine, University of California Medical School.

*Recess*

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12 noon—By bus to Family Farm, Woodside.

1:30-2:30 p. m.—Luncheon at Family Farm.

2:30 p. m.—Visit to campus of Stanford University.

6:30 p. m.—Dinner at Fairmont Hotel for delegates from member colleges, followed by the executive session (members only).

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WEDNESDAY, OCTOBER 27, 9:30 A. M.

*Symposium on Community Aspects of Medicine*

H. R. Wahl, Dean, University of Kansas School of Medicine.

B. W. Black, Director, Alameda County Institutions. Ralph Couch, Secretary, University of Oregon Medical School and Director of Hospitals and Clinics.

*Integration of the Teaching in Psychology and Psychiatry*

Calvin P. Stone, Professor of Psychology, Stanford University.

George S. Johnson, Professor of Psychiatry, Stanford University.

*Teaching of Psychobiology by Means of Personality Study*

Franklin G. Ebaugh, Professor of Psychiatry, and Maurice H. Rees, Dean, University of Colorado School of Medicine.

**Child Welfare Institute Gets Two Research Men.**—

Adolescence in relation to the problem of secondary education is a subject of research study being undertaken this year at the University of California Institute of Child Welfare by two visiting specialists along this line.

Notice has been received by Dr. Harold E. Jones, Director of the Institute, that Professor Reginald Bell has received a leave of absence from Stanford University and will work at the Institute under a fellowship from the General Education Board. Doctor Bell's research will be undertaken in cooperation with Dr. Jones and Dr. Daniel E. Prescott, research associate, who has been granted leave of absence from Rutgers University for the year.

**Lower California Epidemics Blamed on Invaders.**—

One of the chief indictments against the white race, the charge that its advent into new countries has brought only death and disaster in many instances, is proved in a study of the extent of disease and epidemics among the Indians of Lower California between 1697 and 1773, just completed by Professor S. F. Cook, associate professor in the department of physiology, University of California; and issued as a regular publication by the University Press.

Professor Cook shows in striking fashion how the native Indian population in Lower California fell from an estimated 41,500 to approximately 4,000 in the seventy-five years covered in the study. "Evidence is presented that during this period at least 20,000 persons must have perished as a result of epidemic diseases and that further decline was induced by the ravages of syphilis," Professor Cook stated. "We may assume that in 1697 the population was stable and the birth and death rates were equal, that is, over any considerable period of time. This assumption seems warranted, since the Indians had been in the country for generations and had arrived at a fine equilibrium with respect to their primary limiting factor, that is, food supply. The conclusion seems justified that between 25 and 40 per cent of the population decline in Lower California may be directly attributable to epidemic disease."

Expeditions reaching as far back as 1683 make no mention of diseases among the Indians. But, in the years following the Atondo expedition, the natives became afflicted with "pestes," which developed into wave after wave of violent epidemics. Efforts of the missionary Jesuits to keep out disease, at first effective, were defeated by the successive influxes of soldiers and adventurers.

**Malaria Control in California Must Be Pushed.**—

Malaria, which twenty-five years ago claimed an annual death rate of 64.3 per 100,000 population in some sections of California, has been conquered to a very great extent, but much work remains before it can be completely controlled. This is stated in a paper on malaria and mosquito control, prepared by Professor W. B. Herms, chief entomologist in the Experiment Station of the University of California College of Agriculture.

A recent flare-up of the disease, due presumably to depression conditions, was analyzed by Professor Herms, who lays a portion of the present malarial incidence on human carelessness. However, he states, the malarial incidence in the former principal areas of infection in the State, remains at an encouragingly low figure, proving the efficacy of the control measures undertaken by the State and University health authorities.

The campaign against the anopheline mosquito, chief vector of the disease in California, has brought about notable results, principally a decided decrease in the death rate, but recent surveys show that the disease is being given new encouragement, Professor Herms said. He described a visit to a State migratory labor camp in August of this year while eighty-five men were contained therein. Seven cases of malaria have been diagnosed by the camp doctor since the first of July, and it was possible for the visitors to capture five hundred mosquito carriers within twenty minutes in the mess hall.

The improper care of irrigation ditches and other water sources, and the improper location of labor camps, are two important factors in malaria incidence. The California malaria mosquito breeds almost exclusively in water that is almost continually being freshened, such as seepage pools resulting from leaking irrigation canals or ditches.

**Los Angeles School Health Section.**—The Los Angeles School Health Section has been chosen by Karl F. Meyer, M.D., Director of Curricula in Public Health, the University of California at Berkeley, as a training school for physicians who are taking the course in Public Health under the sponsorship of the Hooper Foundation. Since school health is an important part of public health administration and practice, it was felt that this training was essential in rounding out the education of public health officers. The Los Angeles department was chosen because it was felt to be the outstanding leader in this field.

This year one health officer trainee was given an intensive postgraduate course, lasting one month, in which the Los Angeles school health activities were surveyed and studied.

Last December twelve postgraduate students were given three days of field work, in which the activities of the Health Section were reviewed.

**National Academy to Award Prize to Dr. E. O. Lawrence.**—Dr. E. O. Lawrence, inventor of the cyclotron and leader in the field of radiation, professor of physics at the University of California on the Berkeley campus, will be awarded the Comstock prize by the National Academy of Sciences at its fall meetings in Rochester, New York. This prize, perhaps the most important given by the Academy, is awarded every five years, and is given this year to Doctor Lawrence for "the most important discovery or investigation in electricity or magnetism of radiant energy."

At the University of California, Doctor Lawrence succeeded in developing the neutron ray, by means of his cyclotron, which has been copied in many countries of the world. He has been able to make certain salts radio-active, and to make a low-grade synthetic radium. In view of the cost of radium, this discovery is important; further, it can be used with less danger to patients than can radium itself. He has been able to transmute metals by means of the neutron ray.

Most promising of all the applications of the work is on cancer, the neutron ray being much more lethal to cancerous tissue and less harmful to healthy tissue than the x-ray. This work is being furthered at the University's Medical School.

Gifts to the University have made it possible to construct a new radiation laboratory and to equip it with a cyclotron four times the size of the old one. Further developments are expected when Doctor Lawrence and his staff resume their research with the new apparatus.

**Infantile Paralysis Spray.**—The first report to the Ontario Department of Health on the test of the Peet nasal spray as a preventive of infantile paralysis administered free to nearly one thousand children in this area five weeks ago was made recently by Dr. J. Hagemeyer of Preston Springs, Ontario, Canada.

Of a population of about 1200 children, 993 were sprayed; the remaining approximately 200 were not sprayed. Of the 993 treated, only one child (one-tenth of one per cent) contracted the disease; of the remaining approximately 200, two (one per cent) contracted the disease. The one case in which the disease was contracted after spraying presented two important complicating factors. Subsequent examination disclosed a septal deflection to the right, which practically occluded the respiratory passage on that side, making it impossible to obtain proper contact of the medicine with the desired area.

Since the disease developed ten days after spraying, and since the period of incubation is generally accepted as running from seven to eighteen days, it is also possible that the disease may have been contracted before the treatment was given.

An original method of treating small children was developed. The treatment was administered with a medicine dropper, the child being held upside down to permit the solution to reach the upper nasal passage by gravity.

The spray tested was a solution of one per cent zinc sulphate in 0.5 sodium chlorid with one per cent nupercain, developed by Dr. Max Minor Peet of the University of Michigan. Public treatments started on August 24.

**Editor Advises Medical, Health Groups to Confine Work to Noncommercial Sphere.**—Stating that "people who buy tickets to the movies pay for entertainment, not instruction," Myron Weiss, associate editor of *Time* magazine, speaking at the annual convention of the American Public Health Association, which was held in New York, stressed that those agencies interested in promoting public health education would serve their interests best by confining their efforts to nontheatrical, noncommercial movies. Mr. Weiss called attention to the fact that in the non-commercial field, in spite of numerous one-reel educational films now available to special groups, the surface was as yet unscratched from the standpoint of really valuable instructional achievement.

While the success of many big features, such as "Pasteur," "Green Light," and "Arrowsmith," might indicate that medical films are strong at the box-office, according to Mr. Weiss these "indications are wrong." Each of these pictures, he intimated, had a strong public appeal aside from the medical angle, in some cases a big-name actor, in others a "natural" for a plot.

Conversely, medical and public health agencies were advised that the poor commercial attraction of health films was "by no means an indication of the lack of interest in health matters." Thus the showing of health films is "best restricted to audiences assembled for the purpose of being instructed."

Citing what has already been done in the nontheatrical field, Weiss concluded his talk with conjectures as to the future, and called to the attention of the public health delegates the efforts of the recently formed Advisory Committee on Motion Pictures chosen by the Hays office, and the work of Professors Claire E. Turner and Ira V. Hiscock on a series of health shorts at the Warner Brothers Brooklyn Studio—"an attempt," Mr. Weiss stated, "to make a more interesting instructional reel, tempered by historical background and drama which was to be brought in with professional finesse."

**Tests Give Iodin First Place as Germ Destroyer.**—Exhaustive tests made by the Department of Bacteriology of the University of California have determined that iodine is the most efficient of nine leading germicides in the elimination of bacteria of both the pus and the typhus types. Not only was the primacy of iodine established in the tests, but they also developed an improved method for the evaluation of all germicides intended for human application.

The experiments, which were conducted by Dr. A. J. Salle, assistant professor of bacteriology, and his associates, covered an unusually wide range in the determination of the relative values of the ten germicides. The evaluation of the pus germicides in their order was as follows:

Iodin, iodine trichlorid, mercuric chlorid, Hexylresorcinol, Metaphen, phenol, potassium mercuric iodid, Merthiolate, and Mercurochrome. In the typhus type of infections the evaluation showed the following order.

Iodin, potassium mercuric iodid, mercuric chlorid, iodine trichlorid, Metaphen, Hexylresorcinol, phenol, Merthiolate, and Mercurochrome.

While intended primarily for the members of the medical profession, to determine what germicides should be used in operations, the experiments have wide popular implications, due to the general use of a number of the compounds for superficial cuts and wounds.

All of the germicides were tested for their ability to kill *Staphylococcus aureus* (pus organisms), and *Eberthella typhosa* (typhus organisms), as well as for their effect on the growth of living embryonic tissue. Of the compounds examined, iodine showed the lowest toxicity for healthy tissue, and Mercurochrome the highest. Iodin (in aqueous solution), appears to be the germicide "par excellence," because it combines this low tissue toxicity with high bactericidal efficiency against both of the toxic organism types used in the experiments. Of the newer organic preparations, Hexylresorcinol tested better than any of the others against both *Staphylococcus aureus* and *Eberthella typhosa*. The results left Hexylresorcinol an extremely valuable germicide for general use.

Iodin, a chemical element belonging to the halogen group, was discovered in 1812 by B. Courtois while investigating the product obtained from the mother liquors prepared by lixiviating kelp or burned seaweed. A minute proportion of iodine in the diet appears to be essential for health.

**California Department of Industrial Relations.**—Director T. A. Reardon, in his report to Governor Merriam's Council, stated:

"In the Industrial Accident Commission the number of compensation cases has materially increased without any additional personnel. Coincident with this thought, the following report from the Statistical Department is worthy of serious consideration: 'There was an increase in the number of industrial deaths of approximately 18 per cent for the first six months of 1937 in comparison with the first six months of 1936. Maintaining the same rate of increase for all reported injuries, it is estimated that there will be an increase of more than 25,000 injuries for the first half of 1937 over a similar period in 1936, making a total of more than 165,000 for the first six months of 1937.' In the Safety Department the elimination of injurious fluids in cleaning and dyeing establishments, as well as the organization of the Division of Industrial Hygiene to make a study of industrial diseases, is very important. Of unusual interest is the report of the Legal Department, which shows how railroad employees injured in intra-state commerce, under a decision of the Supreme Court, now come under the jurisdiction of the Industrial Accident Commission." ...

**California Health Officers Meet in San Jose.**—The health officers of California, organized as the Health Officers' Section of the League of California Municipalities, held their annual meeting in San Jose, September 13 to 15. Approximately 150 public health officials attended this conference.

Dr. A. M. Lesem, Director of the San Diego Department of Public Health and President of the Health Officers' Section, presided over the conference. An interesting and valuable program was presented; many representative health officers having been assigned to topics that are of current interest and necessity in the maintenance of public health. Many of the papers presented at the meeting will be printed in the Weekly Bulletin.

The next meeting of this section will be held in Santa Barbara in the autumn of 1938 in conjunction with the annual convention of the League of California Municipalities.

The following officers were elected to serve during the year 1937-1938: Dr. E. F. Reamer of Modesto, Health Officer of Stanislaus County, president; Dr. George Parrish, Los Angeles City Health Officer, first vice-president; Dr. I. O. Church of Oakland, Health Officer of Alameda County, second vice-president; Dr. W. M. Dickie of Sacramento, State Director of Public Health, secretary-treasurer.

**State of New York Eradicates Bovine Tuberculosis.** On October 1, 1937, the State of New York was officially designated by the United States Department of Agriculture as a modified accredited area, indicating its practical freedom from tuberculosis of cattle. New York thus becomes the forty-sixth state in which all counties are in the modified accredited status, indicating that bovine tuberculosis has been reduced to less than one-half of one per cent as shown by the tuberculin test.

In continental United States there are now no counties east of South Dakota that have not been designated as modified accredited areas, and only one other state, California, in which there are any nonaccredited counties.

Tuberculosis among cattle existed to a very great extent in many of the counties in New York when the work of eradicating it was undertaken coöperatively by the state and federal authorities in 1919. Since that time there has been a great increase in the volume of work conducted each year, and during the last three years it was possible to increase the volume of the work because of the additional federal funds made available for the purpose. It was necessary, however, for the State of New York to expend a large sum to accomplish this achievement.

The splendid coöperation received from the herd owners, officials, and others interested in the project, is responsible to a large degree for the success of the eradication work in New York State. Arrangements have been made to conduct the required retesting of cattle which will be necessary to remove any existing infection and protect the tuberculosis-free herds in the state.

**Pacific Coast Surgical Association.**—The annual meeting of the Pacific Coast Surgical Association will be held in Los Angeles from February 22 to 25, inclusive, 1938. For further information, write to H. Glenn Bell, M.D., Secretary-Treasurer, University of California Hospital, Third and Parnassus Avenues, San Francisco.

**Paralysis Research.**—An Associated Press dispatch from Washington on September 23 stated:

Public health service officials welcomed President Roosevelt's announcement of the impending organization of an infantile paralysis foundation.

From its research, they said, may come the all-important explanation of what causes the disease.

"Many, many laboratories still are fumbling for the cause," commented Dr. Robert Olesen, an assistant surgeon-general.

"We have made headway in treatment, but as for cause and prevention we still have to talk in glittering generalities."

Mr. Roosevelt drew on his own experiences as a victim of the disease in describing the need for launching an adequately financed campaign through which one national body would "lead, direct and unify the fight on every phase of this sickness."

"Those who today are fortunate in being in full possession of their muscular power," he said, "naturally do not understand what it means to a human being paralyzed by this disease to have that powerlessness lifted even to a small degree."

"It means the difference between a human being dependent on others and an individual who can be wholly independent."

The disease, also called poliomyelitis, wreaks its greatest ravages on children. The Children's Bureau reported last year that three of every ten crippled children were the victims of infantile paralysis.

The new foundation, as envisioned by the President, would carry on investigation into the cause, prevention, treatment and "every medical possibility of enabling those so afflicted to become economically independent."

**State Compensation Insurance Fund for Industrial Injuries.**—Clark B. Day, Manager of the State Compensation Insurance Fund, submits the following item:

More than \$3,000,000 in cash dividends are to be distributed by the State Compensation Insurance Fund. According to Manager C. B. Day, these dividends will go to employers who were insured in 1936. As in the past, payments are to be made nine months after policy expirations. Distribution will start October 1, with checks being mailed daily in order of policy expiration.

These payments are to be apportioned in accordance with individual accident experience. This will give an added force to safety work and accident prevention. It will also serve to reward employers who helped produce the surplus earnings out of which dividends are to be paid.

The State Compensation Insurance Fund has earned and paid dividends every year since its inception twenty-three years ago. This has been accomplished despite periods of economic depression. To date, more than \$26,500,000 in cash dividends have been returned to California employers.

As a result of the coöperation of its policyholders, the State Compensation Insurance Fund is able to announce not only the largest total dividend ever to be returned, but also the largest average dividend in its history. This indicates the strong financial position of the Fund and again demonstrates the success with which it has always served employers. Created by the people of the State of California to provide compensation insurance at cost, it has operated without State aid or subsidy in competition with other carriers. The State Compensation Insurance Fund writes approximately one-third of all compensation insurance premiums in California. This large volume of business makes it possible to provide complete, specialized service for all employers at minimum cost. Paying taxes on its premiums, like any other insurance carrier, the State Compensation Insurance Fund is one of the State's largest taxpayers.

**Postgraduate Symposium on Heart Disease.**—The Heart Committee of the San Francisco County Medical Society will hold its eighth annual Postgraduate Symposium on Heart Disease at the University of California, Stanford University, and San Francisco Hospitals, November 17-18, 1937. The course will cover the various aspects of heart disease, including diagnosis, prognosis, and treatment. Recent advances in cardiology will be reviewed and evaluated. Clinics with practical demonstrations will be held, and newer diagnostic procedures and methods of treatment will be presented and evaluated.

The registration fee is \$2, and will entitle the registrant to membership in the California Heart Association for the year 1938. Those who are planning to attend should notify the secretary as soon as possible. Checks should be made payable to the San Francisco Heart Committee and mailed to the secretary, Elbridge J. Best, M.D., 604 Mission Street, Room 802, San Francisco. The membership card, which will also serve as registration card, will then be mailed, together with a copy of the program, as soon as it is completed.

**Ninth Gorgas Memorial Essay Contest Announced.**—Announcement of the ninth Gorgas Memorial Essay Contest has been made by Admiral Cary T. Grayson, Chairman of the Board of Directors of the Gorgas Memorial Institute, from the office of the Institute at 1835 Eye Street, Northwest, Washington, D. C. The essay contests have become an annual feature of the program of personal health education carried on by the Institute. High schools throughout the country are invited to enroll. Participation is restricted to students in the third and fourth years of high school.

For the best essay written in each school, a bronze Gorgas medal is awarded, and the student so honored represents his school in the State competition. A prize of \$10 in cash is given for the best essay in each state. The judges are state officials—the state health officer, state superintendent of education, and the secretary of state. The state prize-winning essays are then judged for the national awards. The first prize is \$500 in cash and a travel allowance of \$200 for a trip to Washington to receive the prize. The second prize is \$150 in cash; and third prize, \$50.

The subject for this year: The Achievements of William Crawford Gorgas and Their Relation to Our Health.

The dates of the contest: October 21, 1937 to January 21, 1938.

Full information concerning the contest may be found on school bulletin boards or can be obtained from the Gorgas Memorial Institute, Washington, D. C.

**American College of Surgeons.**—Chicago, being one of the great medical centers of the world, was chosen by the American College of Surgeons as the locale for its twenty-seventh annual Clinical Congress, which was held on October 25 to 29, with headquarters at the Stevens Hotel.

The annual oration on surgery was delivered by J. P. Lockhart-Mummery, M.B., B.Ch., Fellow of the Royal College of Surgeons, London, England. His subject was "The Surgeon as a Biologist." The retiring president, Dr. Eugene H. Pool of New York spoke on "The American College of Surgeons in the Training of the Surgeon."

The new officers of the College, who were elected at the 1936 Congress held in Philadelphia, are: Dr. Frederic A. Besley of Waukegan, president; Dr. Frank W. Lynch of San Francisco, first vice-president; and Dr. Austin B. Schinbein of Vancouver, British Columbia, second vice-president. Dr. George Crile of Cleveland is chairman of the Board of Regents and of the Executive Committee of the College. Members of the Advisory Council are: Drs. John M. T. Finney of Baltimore and Charles H. and William J. Mayo of Rochester, Minnesota.

Fellowship in the College was conferred upon several hundred initiates, who have met the qualification requirements.

The twentieth annual hospital standardization conference of the College was held during the first four days of the Clinical Congress, and a list of approximately 2,600 hospitals in the United States and Canada, which are on the 1937 approved list, will be made public. This list is revised each year through continual surveys by the staff of the College.

**The Golden Gate International Exposition.**—A committee of leading western medical men has been formed to work out the details of the health exhibit for the 1939 Golden Gate International Exposition. The major emphasis will be placed on the prevention of disease rather than on its treatment. In keeping with the "Pageant of the Pacific" theme of the Exposition, the contributions of Pacific nations toward the health of humanity will be dramatized. Proper nutrition, practical knowledge of vitamins, sanitation, vaccination, and other matters of public health will be explained for the layman.

The plans have the cooperation of several American universities, notably the University of California, Stanford University, the University of Southern California, California Institute of Technology, Harvard University, University of Oregon, and the University of Washington. (See also CALIFORNIA AND WESTERN MEDICINE, October, 1937, page 268.)

**Southern California Medical Association.**—The ninety-seventh semi-annual meeting of the Southern California Medical Association was held on October 29 and 30, in the headquarters of the Los Angeles County Medical Association, 1925 Wilshire Boulevard, Los Angeles.

The program follows:

#### FRIDAY AFTERNOON SESSION, 2 P. M.

The Normal Aged Person: An Excursion in Geriatrics—L. Dale Huffman, M.D.

Discussion by Verne C. Mason, M.D., Los Angeles; George H. Houck, M.D., Los Angeles.

The Treatment of Acute Urinary Infections—Harry F. Dietrich, M.D., Los Angeles.

Discussion by Ezra S. Fish, M.D., Beverly Hills, and Albert J. Scholl, M.D., Los Angeles.

The Natural History of Nodular Lymphocytoma—John W. Budd, M.D., Los Angeles.

Discussion by Alvin G. Foord, M.D., Pasadena, and John M. Askey, M.D., Los Angeles.

Some Medical Problems Encountered in the Eye Hospital in Madras, India—S. Rodman Irvine, M.D., Los Angeles. (Motion pictures.)

Discussion by George P. Landegger, M.D., Los Angeles; Clifford B. Walker, M.D., Los Angeles.

#### FRIDAY EVENING SESSION, 8 P. M.

A Plea for a More Widespread Recognition of Hypothyroidism and Its Manifestations—Hans Lissner, M.D., Clinical Professor of Medicine and Chief of the Ductless Gland and Metabolic Clinic, University of California, San Francisco. (Illustrated with lantern slides.)

Organized Ignorance—Frederick P. Woellner, Ph.D., Professor of Education, University of California at Los Angeles.

#### SATURDAY MORNING SESSION, 10 A. M.

The Use of the Adrenal Cortex in the Treatment of the Common Cold—Francis M. Pottenger, M.D., Monrovia.

Discussion by Leland G. Hunnicutt, M.D., Pasadena, and Clifford A. Wright, M.D., Los Angeles.

The Present Status of Surgery of the Thyroid Gland—G. Arnold Stevens, M.D., Los Angeles.

Discussion by Charles T. Sturgeon, M.D., Los Angeles; Edwin A. Schneider, M.D., Los Angeles.

Management of Prolonged Labors—Donald G. Tollefson, M.D., Los Angeles.

Discussion by Emil J. Krahulik, M.D., Los Angeles; E. M. Lazard, M.D., Los Angeles.

The Differential Diagnosis of Rectal Tumors—William H. Daniel, M.D., Los Angeles.

Discussion by William H. Kiger, M.D., Los Angeles, and Paul C. Blaisdell, M.D., Pasadena.

#### SATURDAY AFTERNOON SESSION, 2 P. M.

Traumatic Rarifying Osteitis—Frank J. Breslin, M.D., and Kenneth S. Davis, M.D., Los Angeles.

Discussion by Francis M. McKeever, M.D., Los Angeles; Hugh T. Jones, M.D., Los Angeles.

Carotid Sinus Denervation for Syncope: Report of an Unusual Case—Neville T. Ussher, M.D., Arthur H. Elliott, M.D., and Caleb Stone, M.D., Santa Barbara.

Discussion by Clarence J. Berne, M.D., Los Angeles; Morris H. Nathanson, M.D., Los Angeles.

Common Skin Diseases—L. F. X. Wilhelm, M.D., Los Angeles. (With slides.)

Discussion by William H. Goeckerman, M.D., Los Angeles; Kendal Frost, M.D., Los Angeles.

Food Poisoning Due to Staphylococcus—Fred B. Clarke, M.D., Long Beach.

Discussion by John F. Kessel, M.D., Los Angeles; Frederick A. Speik, M.D., Los Angeles.

**Typhoid Fever in California.**—Accomplishments in the control of typhoid fever are outstanding. When it is considered that most public water supplies in California come from surface streams, the necessity for safeguarding such water supplies against sewage contamination becomes obvious. The State Board of Public Health issues permits not only for the disposal of public sewage, but for the provision of public water supplies as well. It has taken an active part in stimulating local communities to disinfect public water supplies so as to remove all possibility of infection from typhoid fever and dysentery. As a result, water-borne typhoid is practically nonexistent in California, and not more than two individuals per 100,000 population now die annually of typhoid fever. In 1906, thirty-two Cali-

**California—Typhoid Mortality Rates Per 100,000 Population, 1920-1935**

Year	Rate	Year	Rate
1920.....	32.8	1928.....	13.0
1921.....	25.4	1929.....	11.1
1922.....	24.4	1930.....	13.0
1923.....	21.1	1931.....	12.2
1924.....	40.3	1932.....	8.9
1925.....	18.4	1933.....	12.1
1926.....	21.1	1934.....	10.2
1927.....	13.5	1935.....	8.5

fornians out of every 100,000 population died of this disease. If the 1906 death rate prevailed today, there would be 2,000 deaths from this disease instead of 80, which occurred in 1935. The credit for this remarkable record is due mainly to the provision of pure water supplies and also to the improvement in general sanitary conditions as well as the immunization of individuals against the disease.

**California Section of the American Sanatorium Association.**—The annual meeting of the California Section of the American Sanatorium Association was held on November 12 at the Orange County Hospital, Orange. The 1937 officers and committees are: Stephen A. Parowski, M.D., president; Charles L. Ianne, M.D., vice-president; William A. Winn, M.D., secretary-treasurer; and as hosts, E. W. Hayes, M.D., and Harry E. Zaiser, M.D.

The program follows:

#### MORNING SESSION

9:30 a. m.—Tour and Inspection of the Sanatorium and Grounds, and Business Session.

#### AFTERNOON SESSION, 2 P. M.

Topics limited to ten minutes; discussions to five minutes. A program for the domiciliary care of indigent patients who have reached maximum improvement in the Tuberculosis Sanatorium. An outline of the Welfar Plan as a solution of the above problem—Mildred Thoren, M.D.

Tuberculosis Sanatorium statistics for the fiscal year 1937-1938: salaries paid doctors, nurses, attendants, etc. Cost per capita; cost per meal; service charges for pay patients in the County Institution—Elliott P. Smart, M.D.

Sputum conversion. Definition and test criteria from the standpoint of treatment, Public Health, and discharge from the Sanatorium—Edwin S. Bennett, M.D.

Thoracic surgery as performed in the Tuberculosis Sanatorium versus the County General Hospital—F. Paul O'Hara, M.D.; Cabot Brown, M.D.

Follow-up program of cases discharged with a favorable result from the Tuberculosis Sanatorium—F. M. Pottinger, M.D.

Outline of program that attempts to keep the arrested case arrested as practiced in Fresno County—Everett Morris, M.D.

Choosing a site for the new Tuberculosis Sanatorium; urban versus rural location; a division of the General Hospital or individual entity—Everett Morris, M.D.; Chesley Bush, M.D.

Is the examination of transients for tuberculosis, as a health measure, as necessary as the examination for syphilis? Should the State Bureau of Tuberculosis supply funds to carry on this work?—Charles L. Ianne, M.D.

The present place and future development of the Preventorium. Statistical survey obtained by questionnaire—W. A. Hodges, M.D.; H. G. Trimble, M.D.

X-ray symposium.

**News Clippings.**—Some news clippings dealing with matters related to public health activities or medical practice follow:

#### Hospital Wage Plea Dealt Blow

Budget Bureau Urges Denial of Union's Petition for Increase

Employees of the General Hospital are not underpaid, but receive higher compensation than is generally paid for the same work in private industry, according to a report submitted yesterday by the County Bureau of Budget and Research to the Board of Supervisors, urging denial of a petition from the Central Labor Union for a wage increase.

#### Bureau Findings

Following a survey of the situation, the Bureau finds that not only are the hospital employees better paid than others in similar work in private institutions and industry, but they enjoy benefits not accorded in outside industries.

Should the increase as asked by the union be granted, it would affect 2,780 employees with a total increase in pay amounting to \$890,270 per annum.

#### Scope of Survey

During the course of the investigation the Bureau held an open hearing on July 21, at which time arguments for the increased pay were presented by the union representatives. Subsequent investigations disclosed, after contact with 123 private businesses made to compare wages, that the hospital workers are not underpaid, the report states.

The report concludes with the recommendation that the general salary increase be denied, stating that such an increase could not be justified.—*Los Angeles Times*, October 23, 1937.

#### Chicago Gets Cancer Clinic

A new cancer institute, bringing together several internationally known scientists, was announced in Chicago on October 24 on the eve of the twenty-seventh annual clinical congress of the American College of Surgeons.

Dr. Max Cutler, Director of the Tumor Clinic of Michael Reese Hospital, said the new organization, incorporated not for profit as the Chicago Tumor Institute, would begin functioning about March 1.

The institute will be the sixth in the United States devoted exclusively to cancer treatment and research.

#### Dan E. Williams of Sonora Resigns From California Senate

The Governor's office announced on October 22 the receipt of the resignation of Senator Dan E. Williams, Republican of Sonora.

Senator Williams gave no reason for his resignation, but it was understood he has established a residence in Idaho.

In 1931 he was elected to the Senate and served during the 1931 and 1932 sessions, being reelected in 1935 to serve in that session and the one of 1937.—*Los Angeles Herald-Express*.

#### Fatal Drug Blamed for Thirty-Nine Deaths

Medical Association Helping United States Food Agency Search for Sulfanilamide Compound

Situation Without Parallel in American History, Declares Dr. Morris Fishbein

Seven hundred bottles of "death elixir," which has killed at least thirty-nine Americans, are still in circulation, the American Medical Association estimated tonight.

The estimate shattered hopes that the danger would pass this week, and indicated that more deaths will be added to the toll taken by the lethal preparation, which was inadvertently released as a remedial medicine.

The situation has become unparalleled in American history, Dr. Morris Fishbein, editor of the American Medical Journal, stated today as he added three more deaths to the list definitely caused by "elixir of sulfanilamide."

#### Most of Drug Located

The United States Food and Drug Administration and the Medical Association are engaged in an intensive search for the remaining bottles of the elixir. Most of the 375 cases of the supposed medicine, which were shipped out before its death-dealing qualities became known, have been recovered.

In isolated areas, however, the estimated 700 "bottles of death," mostly pint bottles, still remain on drug shelves and in private medicine cabinets, according to the Association's estimate today.

The latest deaths definitely attributed to the elixir were in Texas. At High Bank, Texas, a boy first went blind, then

died. At Madisonville, Texas, a child died after being given the elixir for a throat infection. Another boy was a victim in Texas City, Texas.

The condition of six patients to whom the elixir was innocently prescribed was being anxiously watched today in Covington County, Mississippi, where six have already died as a result of it.—*Los Angeles Examiner*. (International News Service, Chicago, October 24.)

#### Medical Schools Open San Francisco Convention Today (October 25, 1937)

The Association of American Medical Colleges, made up of seventy-six medical schools in the United States and five from Canada, will begin a three-day conference at 9:30 a. m. today at the Fairmont Hotel.

Eastern delegates will arrive at 8:30 a. m. on a special train from Chicago. After registration at 9 a. m. delegates will hear a symposium on examinations and a paper on "Cultivation of Health in Relation to the Medical Curriculum" delivered by E. Stanley Ryerson, President of the Association and Assistant Dean of the University of Toronto Faculty of Medicine.

#### Lunch At Stanford

The 150 visitors will have lunch at Stanford Hospital and then see the campus of the University of California. At 7:30 p. m. they will be honored with a reception dinner at the Fairmont Hotel. Hosts will be members of the faculties of Stanford and California Universities and their wives.

Talks by Dr. Ray Lyman Wilbur, President of Stanford University; E. Stanley Ryerson; and Dr. Monroe Deutsch, Vice-President and Provost of the University of California, will be included on the program.

#### Leaders in Symposium

Outstanding men who will lead this morning's symposium on examinations include Dr. E. W. MacEwen, Dean of the College of Medicine, University of Iowa; Dr. H. S. Diehl, Dean of the Division of Medical Sciences, University of Minnesota; Dr. R. H. Dillehunt, Dean of the University of Oregon Medical School, and Dr. Robert P. Dobbie, Professor of Clinical Surgery, University of Buffalo.—*San Francisco Examiner*, October 25, 1937.

#### Rabies Death Verified by Autopsy

Funeral services were held for Dr. Samuel Crouch, 58-year-old veterinary surgeon, who recently died at the Los Angeles County General Hospital apparently of rabies.

As the autopsy was being completed at General Hospital this afternoon, physicians who attended the victim reiterated their statements that they believe death was caused from a dog bite Doctor Crouch received last June.

While he took the Pasteur treatment at the time, and apparently avoided the dread rabies, symptoms of the disease developed last week. The dog which bit Doctor Crouch was a black Scotty belonging to Mr. and Mrs. H. L. Harford, Altadena.

#### Eliminating Stray Dogs Held Essential

Elimination of all stray dogs in the city and the confinement of all licensed dogs to their premises as a means of stamping out rabies was urged today by Dr. Wilton Lee Halverson, following the death of Dr. Samuel Crouch, Altadena veterinarian, who was the third victim of the dread disease this year in California.

"Lives of three useful and respected citizens have been sacrificed because of a combination of unwillingness to stamp out a disease which involves the restriction of dogs," Doctor Halverson said. "The irony of the situation is attested to by the fact that during the year hundreds of valuable dogs also have died from this disease.

"The greatest barrier in stamping out rabies in California is the warped conception that the restriction of the freedom of our dogs will work a hardship on them. If a rigid quarantine were placed on the entire Southern California area, rabies could be effectively stamped out in six months' time. Instead, we have dallied along with half-hearted measures for at least six months, and now the weekly incidence of rabies is just as high as it was when the program commenced.

"There is only one answer to the control of rabies, and that is, the absolute elimination of all stray dogs and the confinement of properly owned dogs to premises except when on leash.

"Pasadena's ordinance requires this, and the Pasadena Humane Society is making every effort to enforce the ordinance to the letter. The citizens of the community can render a valuable service by assisting the Society in the enforcement of the ordinance. No organization, without

the adoption of 'shotgun' tactics can hope to carry out this work unaided.

"In the case of dog bite, the wound should be immediately cauterized with nitric acid. Iodin or other antiseptics are valueless and should not be depended on. If the bite is about the face, Pasteur treatment should be started immediately. If the bite is on the extremities, Pasteur treatment need not be started until it is proved that the dog has rabies. If the dog is not found, safety dictates the institution of Pasteur treatment in addition to cauterization. It should be emphasized that neither cauterization nor the Pasteur treatment are effective in 100 per cent of the cases, but if the wound is thoroughly cauterized immediately, and if the Pasteur treatment is properly given, the chances of development of the disease are exceedingly small."—*Pasadena Star News*, October 19, 1937.

#### Radium Substitute Announced California University Physicist Makes It From Table Salt

Announcement of a discovery of a substitute for radium, which can be produced synthetically in large quantities, electrified the 350 delegates to the National Academy of Sciences at their opening meeting in Rochester, New York, on October 25.

Dr. Ernest O. Lawrence, University of California physicist, announced that the substitute is common table salt, made radio-active by an atom-smashing machine which he invented. It is said to be capable of performing all that the vastly more expensive radium does and can be produced in quantities large enough to supplant radium in the treatment of cancer.—*Los Angeles Examiner*, October 26.

## LETTERS

Concerning article on "Valley Fever," published in September issue of "California and Western Medicine," page 151.

Los Angeles, September 23, 1937.

To the Editor:—In the September, 1937, issue of CALIFORNIA AND WESTERN MEDICINE there appeared an article titled "Valley Fever," etc. (p. 151), in which the author speaks favorably of the cutaneous test in coccidioides as a diagnostic procedure. In a paragraph purporting to represent a partial reproduction of a report by the Kern County Health Officer, reference is again made to the diagnostic procedure "with the Kessel coccidioidin preparation."

Far be it from my purpose to minimize the value or the importance of the work of Professor Kessel in the field of mycology. His scientific contributions to the literature speak for themselves. Furthermore, his direct interest in the problem of coccidioides has been of material help to this writer personally on various occasions. It is precisely because of my respect for the work of Doctor Kessel, and due to a desire to see facts recorded accurately, that I am taking the liberty of calling the attention of the writer of the above-captioned article to the fact that the diagnostic coccidioidin, the method of its preparation, its administration, the interpretation of the cutaneous reaction, etc., were all published by me in the *Archives of Dermatology and Syphilology*, October, 1928 (Vol. 18, pp. 562-567), and in my book, "Fungous Diseases" (p. 246).

Respectfully yours,

H. P. JACOBSON, M.D.

#### Concerning the American Red Cross.

To the Association Secretary:—This letter conveys two messages. First, it brings you a copy (separate cover) of our report on Red Cross work in the Ohio-Mississippi flood of early spring 1937, and conveys to you and through you to your membership our sincere thanks for your and their part in our successful flood fund campaign. Additional copies of the report will be sent if you desire.

Second, this is the beginning of our third year of objective participation with other organizations in an intensive campaign for the prevention of accidents in the home and on the farm. Our program has two parts:

1. Annual home and farm self-inspection campaign—carried on with the cooperation of the schools and giving every school child in the United States opportunity to take home a copy of the attached "Check List."

2. Continuing year-round educational program—carried on through cooperating organizations and ready-made groups by means of "Group Discussion" on Accident Prevention. You will see what I mean if you will look over the copy of ARC 1027, "Group Discussion Material on Accident Prevention," which I am sending separately.

Our Chapter committees on Home and Farm Accident Prevention are for the most part composed of representatives of local cooperating organizations. Those representatives, as well as our Chapter people, would receive inspiration from a message from you either by letter to your local units or through your house organ, if you have such. I should appreciate it if you will do that, advising me of any action you take and sending us copy of your message to your local units with the privilege of using it ourselves.

Sincerely yours,

A. L. SCHAFER, Manager.

#### Concerning prize essay.

*To the Editor:*—The membership of the Board of Directors and the Advisory Committee of the Mississippi Valley Medical Society will greatly appreciate your publishing the enclosed notice, pertaining to a cash prize and a gold medal award, in the next available issue of your publication. We are eager to give this matter as much publicity as possible, and thank you sincerely for any cooperation you can render.

Cordially,

MISSISSIPPI VALLEY MEDICAL SOCIETY.  
Harold Swanberg, M.D., Secretary.

♦ ♦ ♦

#### MISSISSIPPI VALLEY MEDICAL SOCIETY AWARD

The Mississippi Valley Medical Society offers a cash prize of \$100, a gold medal and a certificate of award for the best unpublished essay on a subject of interest and practical value to the general practitioner of medicine. Entrants must be ethical licensed physicians, residents of the United States, and graduates of approved medical schools. The winner will be invited to present his contribution before the next annual meeting of the Mississippi Valley Medical Society (September 28, 29, 30, 1938), the Society reserving the exclusive right to first publish the essay in its official publication—the *Radiologic Review* and *Mississippi Valley Medical Journal*. All contributions shall not exceed five thousand words, be typewritten in English in manuscript form, submitted in five copies, and must be received not later than May 15, 1938. Further details may be secured from Harold Swanberg, M.D., Secretary, Mississippi Valley Medical Society, 209-224 W. C. U. Building, Quincy, Illinois.

#### Concerning Elixir of Sulfanilamide.

San Francisco, October 25, 1937.

*To the Editor:*—Believing that they will be of interest to you, I am enclosing copies of a statement and telegram which I have issued today in reference to the so-called poisonous Elixir of Sulfanilamide.

Office of Director of Public Health

Sincerely,

J. C. GEIGER, M.D.

♦ ♦ ♦

(Copy)

October 25, 1937.

#### STATEMENT

As far as San Francisco is concerned, the problem has been met, with reference to the so-called poisonous Elixir of Sulfanilamide, and the situation is under control. Health officers are in a quandary about this so-called Elixir of Sulfanilamide. So far, no evidence has been produced either by autopsy or chemical formula, or by some biological control such as with animals, to account for the deaths which have been attributed to this drug mixture. Two facts, however, stand out in the tragic picture: First, sulfanilamide, *per se*, though proved toxic in the case of some people, could not alone account for these deaths; second, the solvent allegedly used, diethylene glycol, may be the answer in that the glycol portion is not oxidized in the human body and oxalic acid crystals formed, which will cause kidney poisoning, or uremia and death. The reason the glycols were used may have been primarily for children, for it is sweet in taste.

The question naturally arises as to an answer to such problems, in order to avoid future difficulties. In my

opinion, and despite the seemingly insurmountable difficulties and manufacturers' opposition, it is urged that the Federal licensing and control of new medicines, patent or otherwise, intended for human ills should be accomplished. Likewise, the submission of accurate formulas; the proper labeling; and, finally, the creation of an Advisory Committee with frequent meetings, the committee to consist of representatives from the pharmacological groups, medical colleges, American Medical Association, the health officers of America, and the United States Public Health Service.

Office of Director of Public Health,  
City and County of San Francisco.

J. C. GEIGER, M.D.,

Director of Public Health, San Francisco.

Copies to the President, Washington, D. C.

♦ ♦ ♦

(Copy of Telegram)

October 25, 1937.

Senator Royal Copeland,  
Senate House,  
Washington, D. C.

Realizing and appreciating your interest in better drug legislation, may I urge in reference to the alleged poisoning from so-called Elixir of Sulfanilamide, that you take steps to create the following: Federal licensing and control of new medicines patent or otherwise intended for human ills, likewise the submission of accurate formulas, proper labeling and, finally, the creation of an Advisory Committee, with frequent meetings, the committee to consist of representatives from the pharmacological groups, medical colleges, American Medical Association, the health officers of America, and the United States Public Health Service.

J. C. GEIGER, M.D.

Director of Public Health,  
San Francisco, California.

## MEDICAL JURISPRUDENCE†

By HARTLEY F. PEART, ESQ.

San Francisco

### Right and Duties of Physicians With Respect to Patients

*Acceptance or Declination of Patient.*—As the relation of physician or surgeon and patient is one arising out of a contract, express or implied, it follows that a physician may at any time before accepting a person as a patient decline to render services. The right to decline to accept a patient is absolute if the physician has not, prior to declining to render services, done an act or made a statement from which it may be said that a contract to perform services has been made. In general, a contract between a physician and a patient for the performance of professional services is complete and binding upon both parties whenever there has been an offer and an acceptance. Usually the offer is made by the person desiring to become a patient and is made by the simple act of calling upon the physician and requesting his services. The acceptance of the person's offer occurs when the physician either states that he will perform services or actually commences their performance. When a physician accepts employment either by word or act, a complete contract exists which is binding upon both parties. If a physician desires to decline a person who offers himself as a patient, the declination must be made before anything is said or done from which an acceptance of the offer can be found.

*Compensation for Professional Services.*—In England, before 1858, a physician could not, as a general rule, recover for his professional services in attending a patient; he was presumed to act with a view only to an honorary reward (*Lipscombe vs. Holmes*, 2 Campbell 441, 170 Reprint 1211). The above rule was not applied to surgeons; they could sue for a reasonable compensation (*Poucher vs. Norman*, 10 E. C. L. 107, Reprint 909). In the United States the rule prohibiting recovery of compensation by a

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, containing copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

physician has never been enforced and a physician has uniformly been held to be entitled to recover for his services in the same manner as any other person who performs services for another. The employment of a physician or surgeon without express agreement as to compensation raises an implied agreement on the part of the parties employing him to pay the reasonable value of his services within a reasonable time after they are rendered (*Heintz vs. Cooper*, 5 Cal. Unrep. 564).

**Services to Unconscious or Incapable Person.**—Where a physician renders services to a person injured by an accident, rendering that person unconscious or otherwise incapable of making a request for or expressing consent to professional services, the law will imply a promise from him who received the benefit of the services to pay for them. One very important exception to this rule must be emphasized, namely, that physicians' services rendered to one accidentally injured, even if rendered unconscious, are not compensable if immediate attention is not required, and this is particularly true where there is free ambulance service and free hospital treatment furnished by the municipality (48 Cor. Jur. 1158). On the other hand, it has been held that a physician is entitled to recover compensation for services rendered immediately after an accident, even though he was called by a spectator and proceeded to treat the injured person without being asked so to do (*Schoenberg vs. Rhoades*, 145 N. Y. Supp. 831).

**Inability to Recover Compensation, if License to Practice Is not Recorded in the County Where the Services Were Rendered.**—Section 2340 of the Business and Professions Code, requires every physician to register his certificate in the office of the County Clerk in every county in which he is practicing his profession. A physician who has not complied with Section 2340 is not entitled in an action at law to recover his fees for professional services rendered (48 Cor. Jur. 1159).

**Right to Recover Compensation as Dependent on Beneficial Result of Services.**—In the absence of an express agreement to the contrary, the right of a physician or surgeon to be compensated for his services does not depend upon the measure of his success in effecting a cure by the means employed, but upon diligent exercise under his employment of the skill commonly exercised by those practicing his profession in his locality (*Harvey vs. Richardson*, 91 Wash. 245, Ann. Cases, 1918a, 881). However, it must be mentioned that a contract between a patient and his physician that the latter's right to compensation shall be dependent upon his curing the patient is valid and binding, even though no specified compensation is agreed upon. If a physician attends a patient under a contract that if there is no cure there shall be no pay, he cannot recover for his services unless he shows that a cure has been effected (*Hollywood vs. Reed*, 57 Mich. 234).

In future articles we will continue the above discussion. In an early issue we will discuss the effect of negligence or malpractice on an action to recover compensation as well as other matters relating to a physician's rights and duties with respect to his patient.

## SPECIAL ARTICLES

### A YEAR'S REVIEW OF PUBLIC HEALTH IN CALIFORNIA\*

Public health in California has advanced during the last year, particularly in the development of organized efforts to provide essential services in those districts of the State where such services have heretofore been lacking. Of first importance is the formation of new full-time county health units, of which there are now twenty operating in California. There is, in fact, a continuous and unbroken chain of such units extending along the coast from San Francisco to the Mexican border and to Arizona. In addition, most of the counties of the great interior valley of the San Joaquin are organized to provide residents with full-time service. The total population under these twenty units is, according to the 1930 census, 1,788,000—which represents

31.5 per cent of the population of the State. Ten of the State's municipalities have full-time health departments which are not affiliated with county units; their total population, according to the last federal census is 2,680,000, representing 47 per cent of the population of the State. This means that a total of 4,470,000 California residents, nearly 80 per cent of the population of the entire State now enjoy the benefits that come through adequate full-time public health service.

#### EPIDEMIC DISEASES

Since our last meeting, no major outbreaks of epidemic diseases have occurred. Acute poliomyelitis has, fortunately, not assumed epidemic proportions, although there is a seasonal increase at the present moment. Influenza, while prevalent during the winter months, did not present a picture to cause undue alarm. Little change in the prevalence of diphtheria and typhoid fever has been noted, although the tendency of each has been toward a decrease. Smallpox, in some unvaccinated communities, has flared up slightly, emphasizing the importance of eternal vigilance in the exercise of preventive measures. As a matter of fact, the control of diphtheria, smallpox and typhoid fever has resolved itself into routine administrative procedures, neglect of which, at any time, and however slight, may produce damaging results to the statistical record of any community. With cases and deaths reduced to almost a minimum in many counties, the appearance of a small group of cases of any of these three diseases may ruin favorable statistical records. Too great emphasis cannot be placed upon the importance of continuing immunization procedures in the control of smallpox and diphtheria, without lapses or breaks in continuity. The achievement of minimal morbidity and mortality rates constitutes a valid argument for maintaining successful control measures continuously in order that there may be certain tenure of the winning positions now achieved in most communities after waging successful contests against these destructive diseases.

#### VENEREAL DISEASE

The newly reorganized campaign against the venereal diseases provides exceptional opportunities for advancing in neglected or overlooked fields of endeavor. The legal provisions of the new act for the control of the venereal diseases equip the local health officer with weapons that must be used with skill, good judgment, and tact in order to obtain definitely successful results. The venereal disease program will be discussed in detail at a later session, but I desire at this time to advise the health officers of the State that an unprecedented opportunity in venereal disease control is now within the grasp of each and every such official. The problem is of enormous proportions in some of the urban centers, particularly where commercial prostitution prevails and where agricultural and unskilled labor centers are maintained. The incidence of venereal diseases is unknown in many districts of the State. New report forms, circularization of practitioners, and publicity have helped to stimulate reporting by physicians who have, heretofore, not reported cases under their care. The full coöperation of health officers with practitioners of medicine is of first importance in the successful administration of the new law for the control of the venereal diseases.

#### MIGRATORY LABOR

In some parts of California, migratory laborers who have flocked into the State create problems that are particularly disturbing. Many different agencies are engaged in coping against undesirable health and social conditions that prevail among these workers—conditions that they have brought with them into California and which must be controlled in order to protect the health of the residents of local communities, and of the whole State. Similar conditions although not so extensive, have been encountered in California many times before and there would seem to be no reason to believe that the general health of the public will suffer from this new invasion of migratory laborers into California. The problem that they present for future solution is of great economic, social and educational importance, and its present public health significance is very great. With active organized public health units assisted by State, Federal, and other agencies, there is every reason to believe that the solution of the migratory labor problem will be far easier for public health administrators than it will be for the body politic.

\* Paper read at the Health Officers' Section, League of California Municipalities, San Jose, September 13, 1937. By W. M. Dickie, M.D., Director of Public Health State of California.

## PLAGUE

Until recently it has been believed that rodent plague is unique in California, but it is now known definitely that plague is a problem of importance in all of the western states, infected rodents having been found recently in almost every state of the Pacific slope. There is every reason to believe that at one time an epidemic of rodent plague swept through western United States, leaving foci of infection in many states.

In the extensive research work that is now being done among rodents in California we have found that in many areas, fleas combed from rodents, including ground squirrels, chipmunks, wood rats and field mice, show plague infection. Infected fleas are found on infected rodents and they are also found on many rodents that show no sign of disease. The exact significance of this is unknown at the present time. For this reason, the presence of infection in rodents will continue to be regarded as a true index of a plague-infected area. It is hoped that the extensive research work that is being done by various health agencies will clear up many unexplained points in the transmission of the disease.

It is imperative, at all events, that every effort be made to extend our knowledge into the epidemiology of this disease, which, in world history, has played such a murderous rôle in the destruction of mankind.

## SOCIAL SECURITY

With the provision of federal assistance under Social Security, the difficulties associated with the provision of adequate health services in the rural counties, without organized units, have been eased considerably. Spectacular results have not been obtained because the newly established services have been in operation for a very short time. There is evidence, however, that residents of many extreme rural areas are now provided with modern public health services that have been denied to them heretofore. Without doubt a demand for continuous public health services will follow and the present demonstrations lead to permanently established machinery for the maintenance of high health standards in the rural districts.

## INFANT MORTALITY

Last year the State's infant death rate increased, particularly among the white population of the State (including Mexican) and there was an increase in the number of maternal deaths. The infant mortality rate, for many years, has been regarded as a sensitive index to general health conditions. Because it is based upon the proportion of infant deaths to the number of live births registered, rather than population (which is just now an unknown quantity) it has been assumed that the rate possesses a definite and reliable index to the work of the local health department. It would seem, now, however, that it has been demonstrated successfully that biological and other factors uncontrollable by humans are often decisive in determining the infant mortality rate in those districts where full and adequate service is given to prospective mothers and their infants. Detailed studies of infant mortality and maternal mortality, with particular reference to race, economic status of the family, education, constitutional disease in the parents and similar attributes would, without doubt, explain the reason for a large number of unpreventable infant deaths. At all events, it would seem fallacious to judge of any health unit upon the fluctuations in its infant mortality rate from year to year. It would be far better to base evaluations upon average rates, decade by decade, or at least by five-year periods. There is an opportunity for health officers to make careful studies of their infant death rates, in order that the causative factors may be accurately recorded. Until such time, it would seem that an entirely unfounded and mistaken evaluation might be made of the public health services involved.

## CRIPPLED CHILDREN

Since the act for the relief of physically handicapped children went into effect, more than one thousand such individuals have found relief under its beneficent provisions. Under Social Security during the past year, it has been possible to conduct more clinics for the discovery of crippled children. As a result, treatment has been provided for large numbers of the physically handicapped, who might otherwise have gone through life a burden to themselves, their

families, and to society. The results obtained through work among crippled children are so spectacular and so successful that they make a strong appeal not only to those who are engaged in public health activities, but to the general public as well.

## PUBLIC HEALTH NURSING

During the past year large numbers of public health nurses have been placed in rural counties, where public health nursing service has never been applied heretofore. Public health nursing is an integral part of any adequate program in public health administration, and the enlarged opportunities for providing this service prove of great advantage not only to public health nurses, but also to the communities where this new service has been made available. It is hoped that there may be continued opportunities for extending public health nursing throughout all parts of California.

## THE HEALTH OFFICERS' OPPORTUNITY

These are but some of the highlights in the public health of California that have appeared since the last meeting of this section. There are many other important topics for which there is not sufficient time to consider here.

No discussion of public health in this State during the past year, however, can be complete without mention of the many social, economic and political waves of unrest that are apparently affecting the daily lives of our people. The general consternation over labor disturbances, living conditions and economic upheavals of many sorts, is shared by the health officer as well as other servants of governmental units. In such a time of unrest, the provision of adequate public health service is essential. Programs must be devised and administered to fit conditions that may prevail in each particular local community. The local health officer has greater responsibilities than ever before. To know definitely the needs of the community and to provide effective public health service to fit such needs, requires keen discernment and administrative attributes of a high order.

The health officers of California have not failed in providing important service in the advancement of public welfare, and in spite of the important changes that occur almost daily in our social, economic, and political life, there is every reason to believe that the public health profession of this State will carry on in accordance with the tradition and prestige of preventive medicine.

## IMPEDIMENTS TO MATERNAL HEALTH\*

It is frequently asserted that two-thirds of maternal deaths are due to causes which are preventable. The assertion is undoubtedly real and is an indictment against the medical profession and the laity alike. But prevention by what means? Statistics inform us that one-third of all puerperal deaths are due to septicemia, approximately another third are attributable to albuminuria of pregnancy—toxic conditions—while all other causes contribute to the remaining third. These figures refer to the recorded cause of death, but do not indicate some fundamental factors responsible for maternal deaths.

## ECONOMIC AND SOCIAL STATUS

The first of these underlying factors concerns the economic and social status of the patient. It is well known that the largest families are found among the "lowest" social and economic groups. It is significant that in a recent study it was found that not only was the birth rate highest among those in the lowest income brackets or on relief, but that among those families in which the social and economic status had progressively dropped between 1929-1932, the birth rate rose in almost direct ratio. The inherent social implications in these facts are many, but suffice it to say that where the environmental, nutritional, and medical needs are greatest, they are economically least obtainable.

The same one-third of our people who, in the words of President Roosevelt, are "poorly housed, poorly clothed, poorly fed," also get poor obstetrical care. Untrained, unsupervised midwives deliver several hundred thousand babies each year, and for at least 40,000 births there is no attendant. For the unemployed, for those living on a sub-

\* By Thomas Parran, M. D., Surgeon-General, United States Public Health Service.

sistence level, for the poor farm families, I see no way of providing good obstetrical care except as a community responsibility. But you ask: "Can we afford it?" We cannot afford the price of continued neglect.

The maternal risks in relation to age of the mother increase beyond twenty-five years, reaching a maximum at forty years or over. The life hazard for the mother is greatest at the birth of the first child. In 1927, the first-born constituted 27 per cent of all births; in 1931, 31.9 per cent. In that same period there was an increase of 11 per cent in the number of mothers at age twenty-five giving birth to the first child, and a like increase among those of forty years. It is not unreasonable to assume that late marriages and one-child families, related as they are to economic and social problems, undoubtedly contribute to the maintenance of a high maternal death rate.

#### IGNORANCE AND INDIFFERENCE

A second factor underlying the material mortality rate is the ignorance or indifference of the patient. In the cities of New York and Philadelphia, it was found that approximately one-third of all maternal deaths were attributable to ignorance or lack of cooperation on the part of the patient. A recent report made by the Children's Bureau shows that 51 per cent of the women dying from puerperal causes had had no prenatal supervision and 10 per cent had not seen a physician or the doctor was called for the first time when the patient was moribund. Only 12 per cent had prenatal supervision which might be considered adequate. One cannot be complacent in the face of such facts. The opportunity for parents to know the essential needs of maternal care and the development of facilities to make available the necessary services are challenges confronting the public health authorities, physicians, and laity alike.

#### ABORTION

The third factor is the interrupted pregnancies through intentional abortion. Too infrequently is this large cause of death given consideration. . . . *Studies indicate that the abortion index between 1918 and 1932 increased more rapidly than the birth index.* Of approximately three thousand pregnancies in New York City, 30 per cent terminated in abortions; three-fourths being illegally induced abortions. The amazing fact is that approximately one-fourth of all maternal deaths follow interrupted pregnancies. Nearly three-fourths of the deaths associated with abortions were due to sepsis, and deaths due to septic abortions constituted half of all the deaths from puerperal septicemia, which is the greatest single cause of maternal mortality.

*These figures are appalling, but they represent only the known cases and constitute only a small fraction of the total number. We were aware of the real facts, the magnitude of the problem would be more overwhelming.* It is not one that is limited to the unmarried mother, although the death rate is higher in this group, but extends into the core of our social structure—the family. A survey of ten thousand clinic patients in New York City showed that 15 per cent of pregnancies were terminated by criminal abortions during the first five years of marriage. After ten years of married life, the rate rose to 40 per cent.

#### SYPHILIS

A fourth impediment to maternal health is syphilis. Yet it is the most easily correctable of all factors I have discussed. While syphilis is not a direct cause of maternal deaths, it is the greatest single cause of stillbirths. An average of one baby in every sixty born in this country carries the germ of syphilis in its body, yet no woman need bear a syphilitic child. Connecticut has paved the way by a state law which requires a physician's certificate and a laboratory test showing freedom from syphilis before a marriage certificate is issued.

I have discussed four great impediments to maternal health: poverty, ignorance, unwillingness to bear children, and disease. Until we shall have lifted the load of poverty, the community can at least share its burden to the extent of giving the minimum essentials of care during pregnancy and at childbirth to those women unable to secure such care for themselves. Good care will prove in itself a potent force in combating ignorance. It is scientifically possible to keep the germ of syphilis out of the bodies of our babies, but unless science is given a chance to operate, it is useless. Guiding the expectant mother into channels of thought

which will result in a consultation with her physician on this specific consideration, is a problem which health organizations can materially aid in solving.

I scarcely know which is the greater tragedy—the unwanted child or the syphilitic child. Surely, from the standpoint of the community the syphilitic child presents the more complex problem. It is only the women themselves, and not their doctors, who can do something about the unwanted child and the deaths from abortion, sepsis, and death which results from preventing its arrival. But the community must assume a great part of the responsibility for the prevention of syphilitic children by careful, conscientious insinuation of better medical care. If expectant parents can be taught to give science a chance on this often neglected ground, science can reasonably be expected to carry out its full obligation to the community.

### INFANT AND MATERNAL MORTALITY IN CALIFORNIA\*

Infant mortality provides a sensitive index to public health conditions. The steady downward trend in the infant mortality rate for California from 1906 to 1935 indicates, clearly, the improvement in general health conditions. The rate in 1906 was 160.0 and in 1936 it was 53.0. If deaths of infants belonging to the foreign-born were excluded from this tabulation, the rate for the white population would equal, if not better, the outstanding rates of New Zealand—32.0 in 1933 and 1934.

#### Infant Mortality—California

Year	Rate	Year	Rate
1906.....	160.0	1921.....	66.3
1907.....	139.0	1922.....	71.1
1908.....	128.0	1923.....	72.9
1909.....	113.0	1924.....	67.1
1910.....	116.0	1925.....	68.5
1911.....	101.0	1926.....	62.9
1912.....	100.0	1927.....	62.5
1913.....	99.0	1928.....	62.4
1914.....	86.0	1929.....	63.0
1915.....	74.0	1930.....	58.6
1916.....	73.0	1931.....	56.5
1917.....	78.0	1932.....	52.8
1918.....	83.0	1933.....	53.4
1919.....	70.0	1934.....	51.6
1920.....	75.0	1935.....	49.5
		1936.....	53.0

While funds have never permitted such work to be conducted to a degree of completion, there is significance in the fact that the Bureau of Child Hygiene has, since 1923, made examinations of more than 250,000 children, most of them in the rural districts of the State. To be sure, there are sections where this type of service is lacking entirely and where no machinery is provided. In spite of this, the work is being extended and eventually there is every reason to believe that adequate public health protection may be provided for most of the rural districts of the State.

In 1936, four hundred and one mothers died in childbirth in California and in 1925, four hundred and ninety such deaths occurred. There has been a general reduction in the maternal mortality rates within the State. Were it not for abortions and conditions that are not amenable to change in California, the maternal mortality rate might well be reduced by one-half.

\* See also page 301, in this issue.

#### Maternal Mortality—California, 1925-1935

Year	Rate	No. of Deaths
1925.....	5.7	490
1926.....	5.2	428
1927.....	5.3	447
1928.....	5.5	463
1929.....	5.2	426
1930.....	5.2	443
1931.....	6.2	510
1932.....	5.7	448
1933.....	4.8	364
1934.....	4.4	346
1935.....	4.7	375
1936.....	4.7	401

### WHAT ABOUT ABORTION?\*

The three most important causes of maternal mortality are the toxemias, puerperal sepsis, and abortion. Each, according to figures of the United States Children's Bureau, is responsible for nearly one-fourth of the deaths of mothers.

Extensive scientific research is being devoted to the toxemias, and good prenatal care appears to offer a method of reducing the frequency of serious complications from this group of diseases. Efforts are also world-wide against puerperal sepsis. Recent progress here has perhaps been slow, but when one looks at the history of the last hundred years, it is clear that the reduced frequency of infections after delivery has been obstetrics' most brilliant achievement. But what about abortion? It offers a threat to maternity which has steadily increased in seriousness and importance. Yet, because of the complexity of its social, economic, and religious aspects, abortion presents a problem few have had the courage to approach. Furthermore,

#### *Causes of Maternal Deaths*

Toxemias .....	23 per cent
Sepsis .....	23 per cent
Abortion .....	22 per cent
Hemorrhage .....	10 per cent
Other accidents .....	13 per cent
All other causes .....	9 per cent

—United States 1933-1935 Children's Bureau, United States Department of Labor.

since it is not a purely medical question, the physician feels his responsibility less directly, while legislators and social agencies also regard it as not definitely in their fields. Nevertheless, abortion explains such a large fraction of our present maternal mortality that it is a tempting field to enter.

Here are a few facts about abortion. Doctor Taussig, the author of a recent book on this subject, has estimated that there are 681,000 abortions in the United States every year, with a resultant eight thousand deaths. Forty years ago the ratio of abortions to confinements was probably about one to seven, but Doctor Taussig believes that throughout the country it is now one to three. In some industrial centers the number of abortions perhaps equals the number of full-term deliveries! Over one-half of the illegal abortions are done by physicians, one-fifth by midwives, and the remainder by expectant mothers themselves.

The reduction in the deaths from abortion cannot be achieved by medical research but by a fundamental attack upon many basic social problems. The motives which drive the patient to seek abortion must be analyzed and the causes, if possible, removed. This leads one at once to the problem of improving the prospects for the unmarried mother and her illegitimate child; to the removal of some of the economic hazards which face the young married couple living on an income inadequate for three persons; to the need of allaying prevalent fears of the physical discomfort and the risks of childbirth; and to the necessity of developing in all married persons a sense of their share in the responsibility of producing a new generation. These are fundamental needs which will require years of careful planning.

Efforts to suppress the abortionist himself have met, in the past, with little success. There will always be a few physicians willing to do these operations, and juries will not be too hard on men performing a function which society, shamefacedly perhaps, condones. The conscientious physician can still do much by disciplining his colleagues and by controlling medical opinion, as well as by directing his patients to other solutions of their problems.

A spread of knowledge is an important beginning toward a solution of the problem. A woman who has discovered the possibilities of abortion through gossip with a friend little realizes the dangers that are involved. These she should learn. First, she may die; an unlikely result for the individual woman concerned, but it is what happened to several thousand American women last year. Much more often she will become sterile from the effects of the moder-

ate infections which frequently follow such procedures. At best, she is subject to the psychological degradation of doing in secret what she is ashamed to do openly, to close contact with a man or woman whose ethics, in one respect at least, are not of the best, and finally to the remorse in later years of thinking of a son or daughter who might have been born.

Many abortions are undertaken on the impulse of the moment, when an unexpected pregnancy clouds the immediate future. A friendly word of encouragement and warning, a discussion of the many risks, will often serve as a check until, after a few weeks of mental readjustment, the pregnancy is gladly accepted. Such a word must often come from the physician, but it is as valid from any other friend.

### ECONOMICS OF VENEREAL DISEASE CONTROL

For several years the United States Public Health Service and many State Departments of Health have been devoting particular attention to the problem of venereal diseases. Recently comprehensive measures involving the expenditure of considerable sums have been instituted for the control of these diseases. It is naturally assumed that all of this activity and expenditure will be justified by results.

When the taxpayer is burdened as he is today, when industry groans under the charges it must bear, is it right to demand continued and increasing expenditures for this purpose? It is not unless it can be shown conclusively that the adoption and continuation of comprehensive control measures bring actual results. With some, unless an economic justification can be found for the program proposed, its timeliness might be seriously questioned. "Before discussing what aid may be expected in the battles against these diseases from the National Security Act, it will be worth while to consider the essential planks in a platform for venereal disease control as a community responsibility."

1. "Work for more complete information on the prevalence of these diseases and other factors in planning their control.
2. Provide adequate laboratory and consultation services to assure accurate diagnosis for all possible cases.
3. Secure prompt treatment for all infectious cases, and provide aid in keeping them under treatment and observation.
4. Develop an epidemiological investigation service to discover and induce contacts and sources to seek examinations and necessary treatment.
5. Supply drugs and other therapeutic aids as necessary.
6. Increase the number of persons seeking diagnosis and treatment from competent private practitioners by offering the above services to physicians for their patients when required.
7. Supplement the maximum private practice care of cases by offering similar aid to existing private and public clinics.
8. Establish such additional public health clinic and consultant services as may be necessary to provide fully for proper treatment of all cases.
9. Advocate as an added safeguard to public health and for the welfare of individuals and the general public, treatment and after-care of late syphilis and chronic gonorrhea cases.
10. Make available hospital bed facilities and service for all cases requiring such care for themselves or as a protection to their families and community groups.
11. Conduct a continuous campaign of public information and aid the education authorities to include appropriate material in permanent health education programs.
12. Promote prophylactic procedures under such safeguards as will insure scientific application and keeping the individuals under observation until freedom from infection is certain.
13. Correlate and carry on recognized measures and activities for protection of individuals and communities against practices, amusements, and environmental influences favoring the dissemination of syphilis and gonococcal infections.

\* By Howard C. Taylor, Jr., M.D.

14. Encourage further research, including study of improvement in methods of applying the knowledge acquired."

All of the above cannot be carried out in many communities and Dr. William F. Snow further subdivides them in six groups:

1. Diagnostic services:
  - (a) Laboratory service.
  - (b) Consultation service.
  - (c) Special examination and advice centers.
2. Case findings and holding:
  - (a) Familial syphilis cases.
  - (b) Early syphilis in young men and young women.
  - (c) Congenital syphilis cases.
3. Securing or providing treatment:
  - (a) For syphilis in pregnant women.
  - (b) For syphilis in young married men and women.
  - (c) For syphilis and gonorrhea in children.
  - (d) For early gonococcal infection of young married men and women.
  - (e) For other cases of early syphilis and gonorrhea, and for the remaining cases as personnel, drugs and other facilities permit.
4. Information service:
  - (a) Adult education and publicity concerning these diseases and what may be done about them.
  - (b) Assistance to education authorities and voluntary agencies in carrying out permanent educational plans for incorporating sex education and knowledge of syphilis and gonococcal infections in health education courses.
5. Reporting and the collection of other data:
  - (a) Confidential case reporting for diagnostic, epidemiological, treatment, and other administrative purposes.
  - (b) Securing and tabulating of other information regarding history and disposition of cases.
6. Research and demonstration activities:
  - (a) Further research on problems of syphilis control.
  - (b) Further research on problems of gonorrhea control.
  - (c) Studies and demonstrations of related administrative measures.

"It is evident that a workable program such as this summary implies could be operated on a nation-wide scale only through cooperation of all the states and the Federal Government. It is fortunate that the Social Security Act recognizes this by providing for federal, state, and local cooperation in the prevention of disease and promotion of health. As a result the opportunities have been greatly broadened for including the control of syphilis and gonorrhea in the enlarged program for conservation of national vitality under the stimulating leadership of the United States Public Health Service, the Children's Bureau, and other governmental agencies."

Now to some figures from the Army back in 1918. Most of the men drafted for the Army came from industries of the country, and surely they were not picked from an inferior group. In the second million men drafted, 5.6 per cent had a venereal disease at the time of examination upon arrival at camp. That is, on a particular day one man out of eighteen was infected. During the period of a year the proportion would be even larger.

"Army figures show the importance of venereal diseases as a cause of disability. During 1918, for every one thousand men in service 1,563 days were lost on account of venereal infection. More than four men in a thousand were always on the list of ineffectiveness, in hospitals or infirmaries for this reason. The number of days lost because of these diseases totaled 3,937,710. In 1919, for a much reduced army, the number of days lost was 1,923,420. 'It may be conservatively estimated,' states the officer in charge of this branch of the service, 'that the actual loss to the Army caused by venereal diseases during the year 1919 was not less than \$15,000,000.' Were the measures adopted for control worth while? The Army surely thought they

were and every effort was expended in the endeavor to keep the rate of infection as low as possible."

Translate these figures to industrial life. Assuming there are at least ten million men in industries alone today, it can easily be estimated that the time lost is approximately 15,630,000 days. Industries do not pay by the month at \$90 and board and barracks as the Army did in 1918-1919, so take a wage, say, of \$4 per day and the loss is more than \$60,000,000 annually. Consider the amount of coal that would not be mined, the lumber that would not be cut, etc.; the situation is present in all groups, naturally worse in some, but ever present, and it is not only time lost, for a worker infected with a venereal disease cannot be efficient for he does not know how far that infection has gone, either personally or otherwise. He is likely nervous and afraid. There is no way to estimate the road accidents caused by syphilis for eventually it affects the nervous system and a nervous breakdown may occur at any moment.

Is it worth while to spend the money for control of venereal disease? Consider that one of fifteen of the insane are in state institutions because of syphilis and that blind institutions have a great percentage of inmates due to gonorrhea.

Money well spent now in this cause will, in the next generation, bring back results a thousandfold.—*Ohio Health News.*

### CALIFORNIA TYPHOID REGULATIONS AMENDED

The California State Board of Public Health, September 14, 1937, amended its regulations for the control of typhoid fever and paratyphoid fever so as to provide more definitely and precisely for the control of carriers. Section 7 of the regulations now reads as follows:

#### RULE 7. TYPHOID OR PARATYPHOID CARRIERS

Any person who has been free from symptoms of typhoid fever or paratyphoid fever for one month and whose feces or urine contain typhoid or paratyphoid bacilli, shall be considered a convalescent carrier.

Any convalescent carrier whose feces or urine continue to contain typhoid or paratyphoid bacilli after one year following clinical recovery, shall be considered a chronic carrier.

Any person whose feces or urine contain typhoid or paratyphoid bacilli but who gives no history of having had typhoid fever or paratyphoid fever shall also be considered a chronic carrier.

Any known or suspected typhoid or paratyphoid carrier shall be reported to the local health authority, who shall investigate and report the findings to the State Department of Public Health.

Carriers of typhoid or paratyphoid bacilli shall be subject to a modified quarantine by the State Department of Public Health, and the provision of this quarantine shall be considered as fulfilled during such period as the carrier observes the instructions issued by the State Department of Public Health and the local health authority. Such instructions shall include:

1. The carrier shall take no part in the preparation, serving or handling of milk or other food which may be consumed by persons other than his own immediate family.

2. The carrier shall not participate in the management of a dairy or other milk-distributing plant, boarding house, restaurant, food store, or any place where food is prepared or served.

3. The carrier shall keep the local health authority informed at all times of any change of address or occupation.

In the event of any known or suspected carrier leaving the jurisdiction of a local health authority, the State Department of Public Health shall be notified by the local health authority of the name of the carrier and his destination.

Violation of any of the provisions of this modified quarantine shall constitute an infraction of quarantine regulations and as such be punishable under Section 377a of the Penal Code.

The following instructions for health officers in controlling typhoid fever, paratyphoid A and B carriers have been appended to the regulations:

#### INSTRUCTIONS FOR HEALTH OFFICERS

##### Typhoid Fever, Paratyphoid Fever A and B Carriers

It has been estimated that from 2 to 4 per cent of all cases of typhoid fever become chronic carriers. Some

carriers continue to harbor and discharge the bacilli in the feces or urine for many years, and since many discharge the organisms only intermittently, they may not be discovered through single laboratory tests.

#### Definitions

According to the regulations of the State Board of Public Health, carriers are either convalescent carriers or chronic. A convalescent carrier is anyone who has been free from symptoms of typhoid fever or paratyphoid for one month and whose feces or urine contain typhoid or paratyphoid bacilli; however, any convalescent carrier whose feces or urine continue to contain the organisms after one year following clinical recovery, shall be designated a chronic carrier. Also, any person whose feces or urine contain typhoid or paratyphoid bacilli even though he gives no history of having had typhoid or paratyphoid fever shall be designated as a chronic carrier.

#### Investigations

The regulations for the control of typhoid and paratyphoid fevers require the local health officer to investigate each reported case of typhoid fever, to ascertain the sources of infection and to report his findings to the State Department of Public Health. In conducting such an investigation it is advisable to require a series of three specimens of feces and urine from each suspected carrier and also to require specimens of feces and urine from each of the adult members of the household under investigation—particularly the food handlers. Feces and urine specimens should be required also from any contacts who might be considered possible sources of infection.

#### Laboratory Requirements

Specimens of feces and of urine should be submitted in special containers provided by the laboratory.

Whenever specimens are taken for the laboratory diagnosis of typhoid fever (and this includes specimens from suspected carriers), they shall be sent to a laboratory approved by the State Board of Public Health. Of course, a specimen may be sent to a laboratory that is not approved provided the specimen is divided and at the same time sent to a laboratory holding the approval certificate of the State Board of Public Health.

All laboratories approved by the State Board of Public Health making examinations for the identification of typhoid or paratyphoid carriers shall, in all positive cases forward to the State Bureau of Laboratories, a culture of the organism the isolation of which established the diagnosis.

#### Reporting

A typhoid or paratyphoid carrier shall be reported to the State Department of Public Health at once. He is a potential source of infection and is required to follow definite regulations to prevent the spread of infection to others. The restrictions imposed upon these carriers refer mainly to the handling of food. Provided they meet these requirements their activities will otherwise be unhampered. The health officer should never reveal to the public the name and address of a carrier unless the carrier refuses to comply with the regulations and thereby fails to cooperate.

#### Instructions

When a carrier has been discovered, the health officer or his representative is required to conduct an investigation, explaining to the carrier his condition as a carrier, issuing specific instructions and obtaining the carrier's signature on the agreement blanks, with one copy for the carrier, one for the health officer, and one for the State Department of Public Health.

The specific instructions issued by the local health officer should be in writing and should cover the following points:

1. Carrier to take no part in the preparation, serving or handling of milk or other food which may be consumed by persons other than his own immediate family; and not to participate in the management of a dairy or other milk-distributing plant, boarding house, restaurant, food store, or in any occupation involving the preparation or handling of food, or in any place where food is prepared or served.
2. To encourage every member of his family to be immunized against typhoid fever every three years.
3. To wash his hands thoroughly after using the toilet, with plenty of soap and hot water and also before handling food in the home.
4. To use an adequate amount of quick lime in an outdoor privy (if such must be used), keeping same in a good sanitary condition and fly-proof.
5. To keep the local health officer informed at all times of his address and any change of occupation.
6. To report to the local health officer immediately any cases of illness in family or among immediate associates.
7. To discuss any problems arising concerning his carrier state with the health officer.

8. To communicate with the health officer before submitting to any type of treatment or attempted cure of the carrier condition.

9. Not to be permitted to live or work upon the premises of a dairy except with written permission of the Director of the State Department of Public Health.

At least twice each year the health officer should visit each recorded carrier in his territory to check the occupation, other activities, and the address. We do not recommend the collection of feces and urine specimens from those persons definitely proved to be carriers.

#### Release of Chronic Carriers

Those persons proved to harbor typhoid or paratyphoid organisms in their urine will not be released at any time.

Those persons proved to harbor typhoid or paratyphoid organisms in the feces are not subject to release except with the written permission of the Director of the State Department of Public Health.

There is no known medical treatment for the cure of the chronic carrier condition. Removal of the gall-bladder in selected cases offers a 60 to 75 per cent chance of cure in those cases proved to be gall-bladder carriers. Only those considered good surgical risks should be accepted for operation. Definite instructions issued by the State Department of Public Health must be carried out to obtain the release of such a carrier.

The surgeons contemplating gall-bladder removal in these selected cases should follow these rules:

1. Positive duodenal specimens should be obtained before surgery. Unless a positive duodenal specimen is obtained it is not advisable to operate, as the infection may not be localized in the gall-bladder. In submitting duodenal specimens the surgeon should make certain that the specimens contain bile.

2. Health officers to be notified.

3. After surgery the release of the carrier rests with the Director of the State Department of Public Health, and not the surgeon.

4. After clinical recovery of the patient the following procedure shall be carried out:

(a) Eight successive negative feces specimens taken not less than two weeks apart, must be obtained.

(b) These specimens to be taken under the supervision of the health officer and submitted to the State Bureau of Laboratories or to such other laboratory as may be designated by the Director of the State Department of Public Health.

(c) In addition to the eight negative feces specimens, three successive negative duodenal specimens taken after clinical recovery and not less than two weeks apart, must be obtained. These specimens to be taken under the supervision of the health officer and submitted to the State Bureau of Laboratories or to such laboratory as may be designated by the Director of the State Department of Public Health.

#### Typhoid or Paratyphoid Carrier Agreement

Address: .....

Date: .....

Dr. W. M. Dickie, Director  
State Department of Public Health  
Sacramento, California  
My dear Doctor Dickie:

I have been informed that my excreta contain typhoid bacilli and that unless unusual precautions are taken persons will contract typhoid fever from me. Realizing this danger I hereby agree to observe the precautions stated below that I may be permitted to remain in free communication with other persons.

1. I shall take no part in the preparation or handling of milk or other food which will be consumed by other persons than my own immediate family. I shall not participate in the management of a dairy or other milk-distributing plant, boarding house, restaurant, food store, or in any occupation involving the preparation or handling of food.

2. I shall inform the local health officer of any contemplated change of residence so that he can notify the State Department of Public Health and obtain their approval.

It is understood that the California State Department of Public Health or the local health officer will not make public the fact that I am a carrier unless I in some way violate this agreement.

(Signature)

Witnesses:

(1) .....

(2) .....

## TWENTY-FIVE YEARS AGO†

### EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. X, No. 11, November, 1912

From Some Editorial Notes:

*Appreciation? No! Abuse!*—The energetic efforts of the medical profession to protect the people against preventable diseases and epidemics are evidently neither desired nor appreciated by the people. In San Francisco and other places, great resentment was expressed because the medical profession urged strict muzzling laws in order to stamp out rabies—a disease so easily prevented and yet so entirely incurable. In various parts of the State we have today smallpox; and at last the type has changed and become virulent, just as has been expected. And yet the people do not want protection against this easily prevented disease; they will wipe out even the present poor vaccination law at the next session of the Legislature. They will not allow the State Board of Health to properly guard and control sources of water supply, and so a number of sections are having epidemics of typhoid—another easily prevented disease. In the south the physicians of Los Angeles forced an active and successful fight against poliomyelitis; did the people appreciate it? Not at all; they heaped abuse upon the men who had given their time and their work for the people's benefit. Quarantine "hurts business"? . . .

From an Article on "Labor in Moderately Contracted Pelvis, with Special Reference to Cesarean Section" by Henry J. Kreutzmann, M.D., San Francisco.—Progress in science and practice of medicine has never been made in a steady, onward march, nor in a straight line; but always by leaps and bounds in a zigzag line, with many side steps. All the different branches of medicine are subject to this rule; obstetrics does not make any exception. . . .

From an Article on "Operative and Postoperative Tonsillar Hemorrhage" by W. S. Franklin, M.D., San Francisco.—The essayist in presenting this paper does not attempt a digest of the literature on the control of operative and postoperative tonsillar hemorrhage, but wishes to give an account of his operative experience with the enucleation of the tonsil and the means found successful in controlling the bleeding.

For the past six years my work in tonsillar surgery has been what may be called radical, inasmuch as the tonsilotomy has been discarded, as well as slitting the lacunae, cauterization, and the use of the punch. In all cases removal of the entire tonsillar mass, including the intact capsule, was attempted. . . .

From an Article on "Thrombosis of the Sigmoid Sinus and Jugular Vein, From Direct Tympanic Infection of the Jugular Bulb—A Report of Two Cases" by Hill Hastings, M.D., Los Angeles.—One, if not both, of these cases comes, I believe, under the classification of direct jugular bulb infection, from acute middle-ear suppuration. Similar cases have been reported from time to time during the past few years, but not a sufficient number put on record to impress the general profession with the possibility of the rapid development of this dangerous complication. . . .

From an Article on "Patulous Anus: Its Clinical Significance" by Alfred J. Zobel, M.D., San Francisco.—In a normal individual the anal canal is held closed tightly by the tonic contraction of its sphincter muscles. In certain individuals, however, we observe that when the buttocks are drawn apart there is more or less gaping of the anal orifice. . . .

(Continued in Front Advertising Section, Page 20)

†This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

## BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM, M.D.  
Secretary-Treasurer

### Board Proceedings

The annual meeting of the Board of Medical Examiners opened at the State Capitol, Sacramento, October 18, at 10 a. m.

Approximately sixty applicants, including physicians and surgeons, chiropractors, and drugless practitioners, appeared for written examination.

Twenty-three licentiates have been cited before the Board, to show cause why their licenses should not be revoked, based on various charges, including alleged illegal operations, narcotic derelictions, and violation of probation. The judgment of the Board in each case will be included in "News Items" for December.

### News

"The California Supreme Court yesterday denied a writ of habeas corpus to E. B. Hartman, former San Bernardino chiropractor, who contended he was illegally held in San Bernardino jail. The court ordered Hartman, who has been at liberty on \$200 bond, pending hearing, to serve the remaining ninety days of his jail term. Hartman, convicted on two charges of violating the State Medical Act, carried his fight for freedom from the Justice Court conviction through the Superior, Appellate, and Supreme courts. Two appeals to the Supreme Court of his conviction were denied. In his petition for a writ, Hartman alleged that one of two charges on which he was convicted was unconstitutional. He had served ninety days of his sentence of 180 days when he filed the petition for a writ last March and was released pending the hearing. In January, this year, Hartman was convicted by a jury in San Bernardino township court for using the term 'Dr.' before his name without also identifying himself as a chiropractor and also for practicing medicine without a license. Each count brought a sentence of 180 days, the terms to run concurrently. A year before, Hartman was convicted of similar charges and paid a fine of \$180. Attorney Joseph Seymour of Riverside, who represented Hartman, contended that the conviction on the charge of practicing medicine without a license was unconstitutional because the verdict of the jury was not supported by law and evidence. Hartman has given notice to District Attorney Jerome B. Cavanaugh that he shall surrender and serve the term, as ordered by the Supreme Court." (San Bernardino Sun, October 2, 1937.) (Previous entries, July, September, November, 1935; January, March, April, 1936.) (See Hartman vs. Board of Chiropractic Examiners, 89 California Appellate Decisions, p. 100; In re Hartman for writ of habeas corpus, 83 California Appellate Decisions, p. 647.)

"Request that the State Medical Board investigate charges of Mrs. Kathleen Lewis that Dr. Cecil Reynolds hypnotized her was made yesterday by Superior Judge Joseph W. Vickers. Mrs. Lewis, dress manufacturer, was denied a new trial of the suit brought against her by Doctor Reynolds, as assignee for two hospitals, and another doctor, in which \$537 judgment was entered against her. Doctor Reynolds sought \$3,332. Her defense during the trial was that Doctor Reynolds hypnotized her into believing she was in a serious physical condition. 'In denying this motion for a new trial, I request the State Medical Board to make a thorough investigation of Mrs. Lewis' charges,' stated Judge Vickers." (Los Angeles Examiner, October 8, 1937.)

According to an article printed in the Los Angeles Herald-Express, October 11, 1937, the United States Supreme Court at Washington upheld the constitutionality of the California Medical Practice Act, when it denied a review sought by Arthur O. Borland, Ray A. Borland, and

(Continued in Front Advertising Section, Page 26)

†The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.